SIEMENS

Farbfernsehgeräte
Color TV
Televisore a colori

FS 369 M 4

Kurzfassung der Serviceschrift für Grundchassis
Service manual for basis chassis
Istruzioni d'assistenza il telaio

CS 9409

P 99 A 5

Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Ident-Nr. 53 10 54, sowie zusätzlich eventuell abweichende, landesspezifische Vorschriften!

The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, Ident-no. 53 10 54, as well as the respective national deviations.

Valgono le prescrizioni e note di sicurezza secondo il Manuale di Servizio "Norme di sicurezza" Nr. di identificazione 53 10 54, cosi pure le eventuali disposizioni specifiche vigenti nel singolo stato.

Weitere chassisbezogene Informationen entnehmen Sie bitte dem zugehörigen Service Manual.

For more detailed information on the chassis, please see the appropriate Service Manual.

Ulteriori informazioni a seconda della chassis Le rilevi per favore dal relativo Manuale di Servizio.

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Änderungen vorbehalten
Modification reserved
Con riserva di modifiche

72010-920.70

(D)

Abgleich

Alle nicht beschriebenen Einstellelemente sind werkseitig abgeglichen und dürfen im Service-Fall nicht verstellt werden.

Serviceeinstellungen

1. Tuner-AGC
Nach Austausch oder Reparatur des ZF-Verstärkers oder Tuners verzögerten Regelspannungseinsatz kontrollieren und gegebenenfalls einstellen.
2. AFC-Referenz
Nach Austausch oder Reparatur des ZF-Verstärkers oder Tuners AFC-Referenz Einstellung kontrollieren und gegebenenfalls einstellen.
3. Weißabgleich
Nach Bildrohrwechsel, Austausch oder Reparatur der Bildrohrplatte die Weißwerteinstellung kontrollieren und gegebenenfalls einstellen.
4. Einstellung der Schirmgitterspannung USG
Nach Bildrohrwechsel, Austausch oder Reparatur der Bildrohrplatte die Schirmgitterspannung kontrollieren und gegebenenfalls einstellen.
5. Abgleich des Diodenmodulatorkreises
Nur nach unsachgemäßen Eingriff in der horizontalen Ablenkung notwendig.
6. Geometrieabgleich
Nach Austausch oder Reparatur der Bild- oder Zeilenablenkung.

Abgleich	Vorbereitung	Abgleichvorgang
1. Tuner-AGC	Normtestbild auf hohen UHF-Kanal legen und auf Programmplatz 1 abspeichern; dabei muß die HF mindestens 1,5mV (64dBµV) betragen. Das Menü "Tuner-AGC" über das Service Programm "Info Center"--> "Sonderfunktionen" --> "Service" --> "Kennzahl 089" --> aufrufen (Menüführung). Mit den Tasten < > kann wahlweise auf Betrieb "automatisch" oder "manuell" umgeschaltet werden. Im Automatik-Betrieb stellt der Bedienprozessor den richtigen Wert für die AGC ein.	Den Mode "Manuell" mit "OK" aktivieren und das Bild mit den Tasten < > so abstimmen, daß der Sender gerade zu rauschen beginnt. Danach den Wert soweit zurückstellen daß das Bild gerade rauschfrei wird. Einstellung mit "OK" speichern.
2. AFC-Referenz automatisch	Den gewünschten Programmplatz auf Ortssender mit genormten Kanalraster ohne Finetuning und möglichst niedrigem Kanal abstimmen. Info Center –> Sonderfunktionen –> Service –> Kennzahl 089 –> AFC-Referenz.	Mit der Aktivierung der AFC-Referenz wird eine ZF-Richtspannung vom AFC-Ausgang des IC2370-(11) gemessen und als Vergleichswert beim Sendersuchlauf für die Videowiedergabe über den Antenneneingang (Senderkennung "AV") zur Nachregelung der Modulatordrift herangezogen. Einstellung mit OK aktivieren.
AFC-Referenz Grundwert	**Keine Service-Einstellung**	Im AFC-Referenz Grundwert sind lediglich Mittelwerte der Fertigung abgespeichert.
3. Weißabgleich	Das Menü "Weißabgleich" über das Service Programm "Info Center"--> "Sonderfunktionen"--> "Service"--> "Kennzahl 089" aufrufen (Menüführung).	Mit den Tasten < > die Werte für **VG** und **VB** so einstellen, daß das Weißfeld in der Bildmitte unbunt wird. Wert mit "OK" abspeichern.
4. Einstellung der Schirmgitterspannung USG	Testbild einspeisen. Bildschirmhelligkeit mit der Fernbedienung so einstellen, daß die Grauflächen gerade dunkel werden. Gerät auf AV-Betrieb schalten. An den Testpunkten R,G,B mit einem hochohmigem Voltmeter (Längswiderstand ca. 220 kOhm) die höchste Spannung ermitteln.	Mit dem Einstellregler $\mathbf{U_{SG}}$ auf der Bildrohrplatte den höchsten Spannungswert auf ca. **162,5V±2,5V** abgleichen. Bei Rücklaufstreifen auf dem Bildschirm, die Spannung um ca. 10V niedriger einstellen.
5. Abgleich des Diodenmodulatorkreises	Die Brückenspule L573 wird in der Fertigung abgeglichen und sollte nicht verdreht werden. Das Menü "Geometrie" über das Service Programm --> "Info Center"--> "Sonderfunktionen"--> "Service"--> "Kennzahl 089" aufrufen (Menüführung). Die Bildbreite auf Minimum stellen. Den Tastkopf eines Zweistrahloszilloskops an den Kollektor des Transistors T572 einhängen. Den anderen Tastkopf zwischen den Dioden D571 und D572 anschließen.	Gleiche Impulsbreite der Oszillogramme kontrollieren und gegebenenfalls mit Spule **L573** abgleichen. Bildbreite wieder nach Testbild einstellen und speichern.
6. Geometrieabgleich	Testbild einspeisen. Das Menü "Geometrie" über das Service Programm "Info Center"–> "Sonderfunktionen" –> "Service" –> "Kennzahl 089" –> aufrufen (Menüführung).	Über die Menüführung Geometrie nach Testbild kontrollieren und gegebenenfalls einstellen.

GB

Alignment

All adjustment controls not mentioned in this description are adjusted during production and must not be re-adjusted in the case of repairs.

Service Adjustments

1. Tuner AGC
After replacement or repair of the IF-amplifier or tuner check the Delayed Automatic Gain Control Voltage and re-adjust if necessary.
2. AFC-Reference
After replacement or repair of the IF-amplifier or tuner check the AFC-Reference alignment and re-adjust if necessary.
3. White balance
After replacement of the picture tube, replacement or repair of the picture tube panel, check the white balance and re-adjust if necessary.
4. Adjustment of the screen grid voltage USG
After replacement of the picture tube, replacement or repair of the picture tube panel check the screen grid voltage and re-adjust if necessary.
5. Adjustment of the diode modulator stage
Only necessary in the case of inappropriate changes in the horizontal deflection.
6. Geometry adjustment
After replacement or repair of field or line defelection

Alignment	Preparations	Alignment Process
1. Tuner-AGC	Feed in a standard test pattern at a channel in the upper range of the UHF Band. The RF should be at least 1.5mV (64dBµV). Call up the "Tuner-AGC" menu via the Service Programme "Info Center"--> "Special Functions" --> "Service" --> "Code Number 089". The < > buttons can be used to switch over between the options "automatic" or "manual" operation. .. In automatic operation the contol procesor will set the correct value for the AGC.	Confirm the selected mode manually with the "OK" button and, with the < > buttons, tune the TV station that noise just begins to appear in the picture. Then tune in the reverse direction until the picture just becomes noise free. Store with "OK".
2. AFC-Reference	Tune to a local station on a channel as low as possible at the desired programme position with standard channel spacing without fine tuning. Info Center –> Sonderfunktionen –> Service –> Kennzahl 089 –> AFC-Reference.	On activation of AFC Reference Automatic a rectified IF-voltage is measured at the AFC output IC2370-(11) of the IF amplifier which is used on station search as a comparative value for VCR-RF playback (station identification "AV") to readjust the modulator drift. Activate with OK.
AFC-Reference Def. Value	**Not for Servicing**	The AFC Reference Def. Value contains only average values stored during production.
3. White balance	Call up the "White Balance" menu via the Service Programme "Info Center" --> "Special Functions" --> "Service" --> "Code Number 089".	With < > set the **VG** and **VB** values (amplification green and blue) so that the white rectangular area in the middle of the picture becomes achromatic. Store with "OK".
4. Adjustment of the screen grid voltage USG	Feed in a test pattern. With the remote control adjust the screen brightness so that the grey areas just become dark. Switch the TV receiver to AV operation. Connect a high-ohmic voltmeter (series resistance approx. 220 kOhm) to the test points R, G, B and determine the maximum voltage.	With the control U_{SG} on the picture tube panel set the maximum voltage level to approx. **162.5V±2.5V**. If retrace lines are visible on the screen reduce the voltage by approx. 10V .
5. Adjustment of the diode modulator stage	The bridge coil L573 is correctly adjusted during production and should not be re-adjusted any more. Call up the "Geometry" menu via the Service Programme --> "Info Center"--> "Special Functions" --> "Service" --> "Code Number 089". Set the horizontal amplitude to minimum. Connect one test probe of a dual-beam oscilloscope to the collector of the transistor T572. Connect the second test probe between the diodes D571 and D572.	Adjust the coil **L573** so that both oscillograms have the same pulse width. Re-adjust the horizontal amplitude according to the test pattern and store.
6. Geometry adjustment	Feed in the test pattern. Call up the "Geometry" menu via the Service Programme –> "Info Center"–> "Special Functions" –> "Service" –> "Code Number 089".	Check the geometry via the menu and correct the data according to the test pattern.

(I)

Taratura

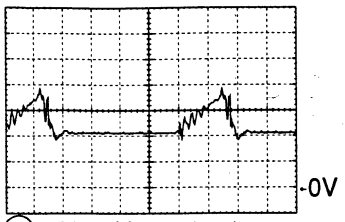
Tutti i componenti di regolazione non menzionati vengono tarati in fabbrica e pertanto non devono essere ritoccati.

Operazioni di servizio

1. AGC-Tuner
Dopo la sostituzione o la riparazione dell'amplificatore FI oppure del tuner è necessario controllare ed eventualmente ritoccare la tensione di regolazione ritardata.
2. AFC-Riferimento
Dopo la sostituzione o la riparazione dell'amplificatore FI oppure del tuner è necessario controllare ed eventualmente ritoccare la taratura di AFC-riferimento.
3. Taratura del bianco
Dopo la sostuzione del cineescopio o di una riparazione sulla piastra cinescopio, è necessario controllare ed eventualmente ritoccare la tensione di griglia schermo U_{SG}.
4. Regolazione della tensione di griglia schermo U_{SG}
Dopo la sostituzione del cinescòpio o di una riparazione sulla piastra cinescopiò, controllare il valore del bianco ed eventualmente correggerlo.
5. Taratura del modulatore a diodi
È necessario solo dopo aver sbagliato l' intervento nella deviazione orizzontale.
6. Taratura di geometria
Dopo la sostituzione o la riparazione verticale oppure orizzontale della deflessione.

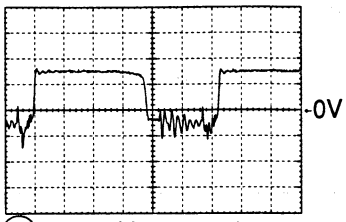
Taratura	Preparazione	Procedimento
1. AGC-Tuner	Applicare un monoscopio su un canale alto UHF. Il segnale AF deve essere almeno 1,5mV (64dBµV). Richiamere il menu' "Tuner-AGC" mediante Service Programm "Info Center" --> "Funzioni speciali" --> "Service" --> "Codice 089". Coi tasti < > si può scegliere tra regolazione "automatica" o "manuale". In funzionamento automatico, il processore di guida sintonizza il valore giusto per AGC.	Eventualmente attivare la regolazione manuale col tasto "OK" e coi tasti < > regolare l'immagine finchè comincia ad apparire fruscio. Quindi regolare in senso contrario finchè l'immagine appare priva di fruscio e memorizzare con "OK".
2. AFC-Riferimento	Monoscopio a norma su un canale superiore della banda UHF. Il segnale AF deve essere di ≥1,5mV (64dBµV, senza fruscio). Info Center –> Funzioni speciali –> Servizio –> Codice 089 –> Tuner AGC.	Con l' attivazione dell' AFC-Riferimento, viene misurata sull' uscita AFC di IC2370-(11) una tensione direttiva di m.f. e utilizzata come valore di riferimento nella ricerca di sintonia di un riproduttore video tramite l' entrata antenna (riconoscimento emittente "AV") per l' inseguimento di deriva del modulatore. Attivare la regolazione con OK.
AFC-Riferimento Def. Value	**Nessuna regolazione di servizio**	Nel AFC-Riferimento "Def. Value" (valori base), sono solamente memorizzati valori medi della produzione.
3. Taratura del bianco	Richiamere con il menu' "Taratura del bianco" mediante Service Programm "Info Center" --> "Funzioni speciali" --> "Service" --> "Codice 089".	Coi tasti < > regolare i valori per **VG** e **VB** modo che il campo bianco al centro dell' immagine sia privo di colore. Memorizzare con "OK".
4. Regolazione della tensione di griglia schermo U_{SG}	Applicare un monoscopio Regolare la luminosità, mediante telecomando, finchè i gradini del grigio accennano a diventare scuri. Commutare l'apparecchio in AV. Con un volmetro ad alta impedenza (ca. 220 kohm) individuare la tensione più elevata sui punti di misura RGB.	Col trimmer U_{SG}, sulla piastra cinescopio, tarare per un valore max di ca. **162,5V±2,5V**. Se appaino tracce di ritorno nell'imagine, ridurre la tensione di ca. **10V**.
5. Taratura del modulatore a diodi	La bobina L573 viene opportunamente tarata in fabbrica, quindi non devrebbe essere ritoccata. Richiamare il menu' "Geometria" mediante Service Programm "Info Center" --> "Funzioni speciali" --> "Service" --> "Codice 089". Regolare la larghezza d'immagine al minimo. Applicare una sonda di un oscilloscopio o dopia traccia al collettore del transistor T572. L'altra sonda tra i diodi D571 e D572.	Controllare la stessa larghezza dell' impulso degli oscillogrammi e eventualemente tarala con la bobina **L573**. Ripristinare la larghezza d'imagine e memorizzare.
6. Taratura di geometria	Applicare un monoscopio Richiamare il menu' "Geometria" mediante Service Programm "Info Center" –> "Funzioni speciali" –> "Service" –> "Codice 089" (Tramite menu).	Tramite il funzionamento controllare il monoscopio e se necessario regolarlo.

Oszillogramme Chassisplatte / Oscillograms Chassis Board / Oscillogrammi del Telaio



① 500mV/cm, 1µs/cm

② 5V/cm, 1µs/cm



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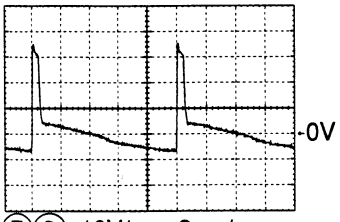
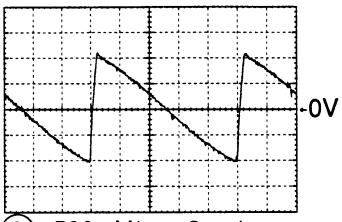


⑦⑧ 10V/cm, 2ms/cm



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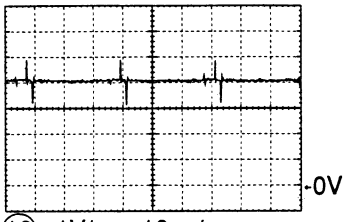

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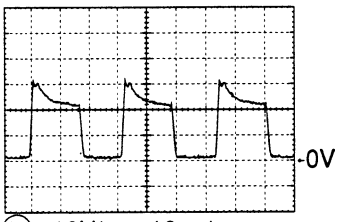

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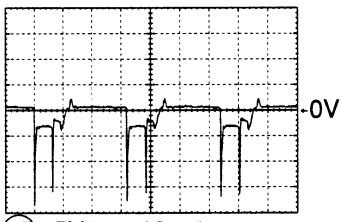
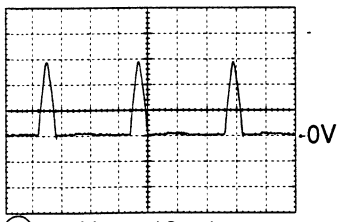


⑮ 5V/cm, 10µs/cm

⑯ 200V/cm, 10µs/cm



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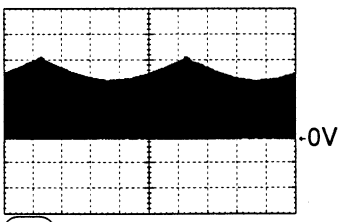

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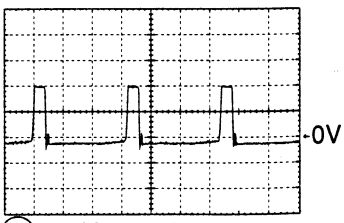
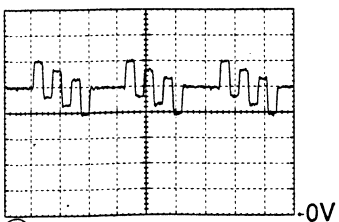
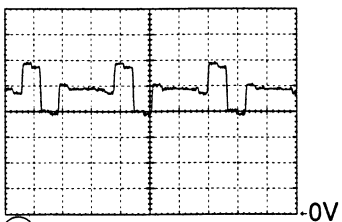


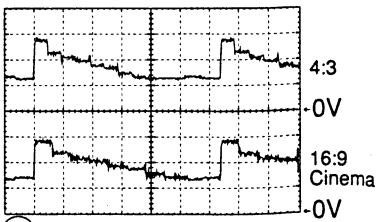
㉑ 50V/cm, 10µs/cm



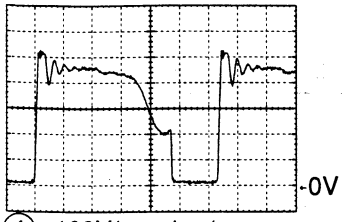
㉖ 1V/cm, 20µs/cm



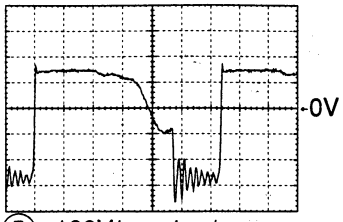
㉗ 1V/cm, 20µs/cm



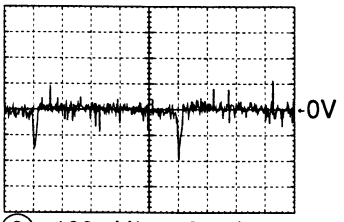
㉘ 1V/cm, 5µs/cm



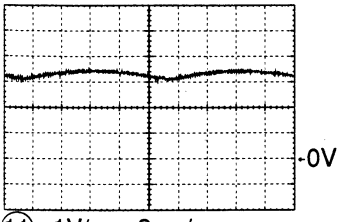
④ 100V/cm, 1µs/cm



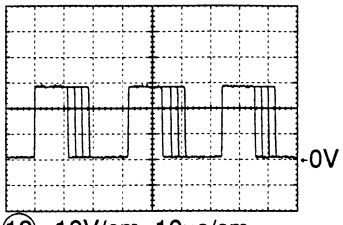
⑤ 100V/cm, 1µs/cm



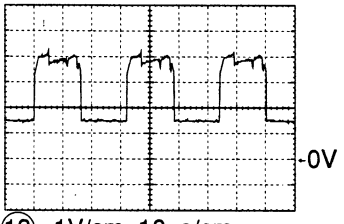
⑥ 100mV/cm, 2ms/cm



⑪ 1V/cm, 2ms/cm

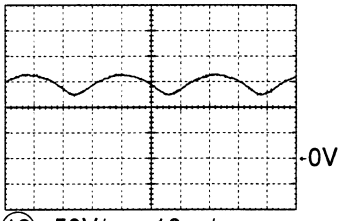


⑫ 10V/cm, 10µs/cm

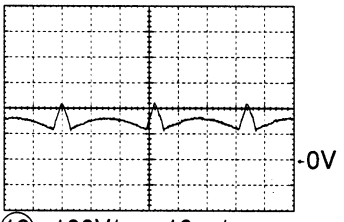


⑬ 1V/cm, 10µs/cm

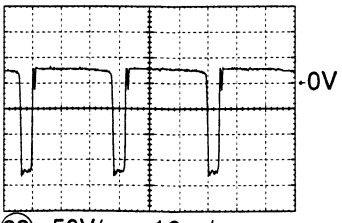
⑰ 20V/cm, 10µs/cm



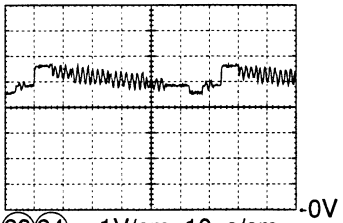
⑱ 50V/cm, 10µs/cm



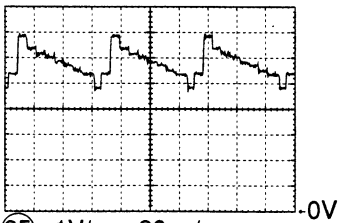
⑲ 100V/cm, 10µs/cm



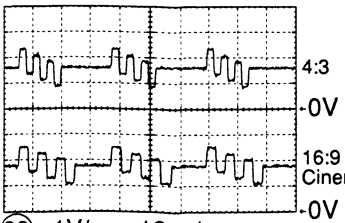
㉒ 50V/cm, 10µs/cm



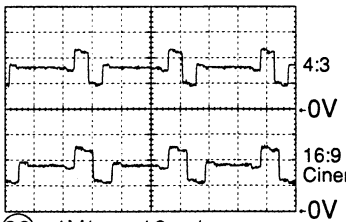
㉓㉔ 1V/cm, 10µs/cm



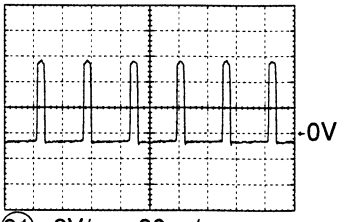
㉕ 1V/cm, 20µs/cm



㉙ 1V/cm, 10µs/cm

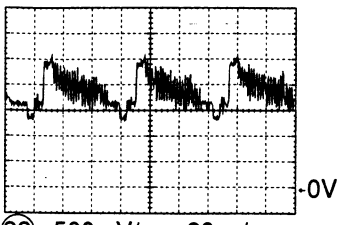


㉚ 1V/cm, 10µs/cm

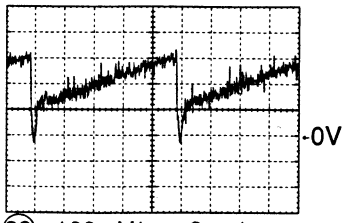


㉛ 2V/cm, 20µs/cm

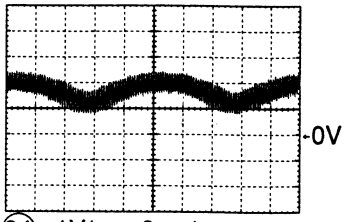
Oszillogramme Chassisplatte / Oscillograms Chassis Board / Oscillogrammi del Telaio



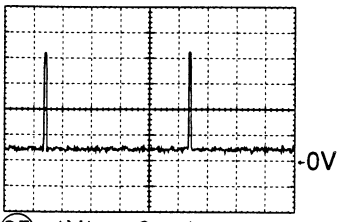
(32) 500mV/cm, 20µs/cm



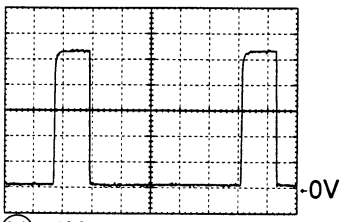
(33) 100mV/cm, 2ms/cm



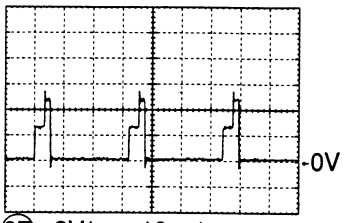
(34) 1V/cm, 2ms/cm



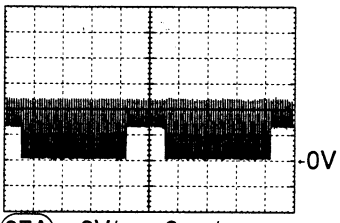
(35) 1V/cm, 2ms/cm



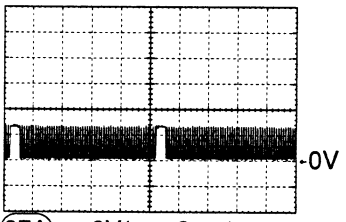
(36) 2V/cm, 10µs/cm



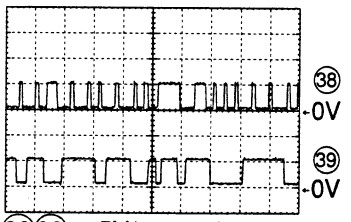
(37) 2V/cm, 10µs/cm



(37A) 2V/cm, 2ms/cm
16:9 Cinema

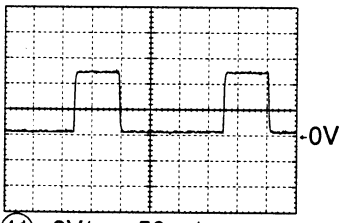


(37A) 2V/cm, 2ms/cm
4:3



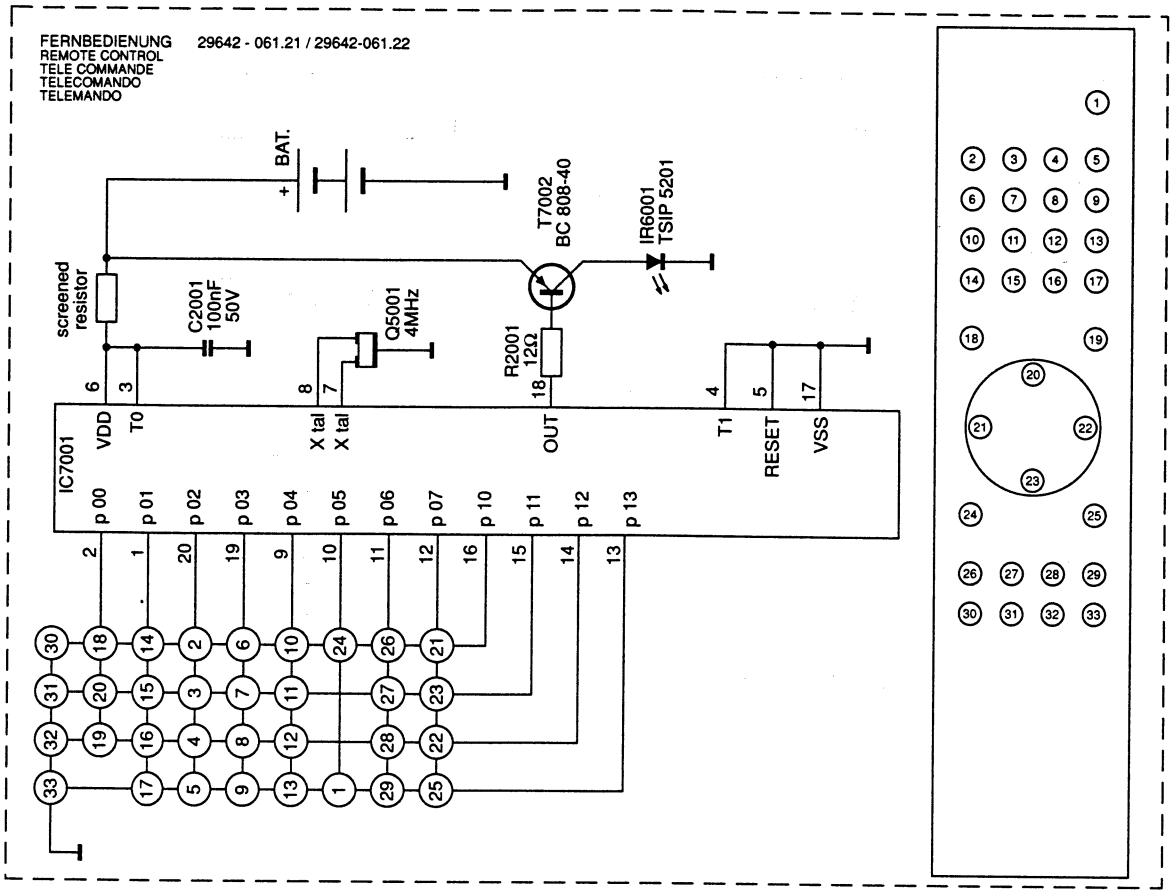
(38)(39) 5V/cm, 100µs/cm

(40) 1V/cm, 10µs/cm

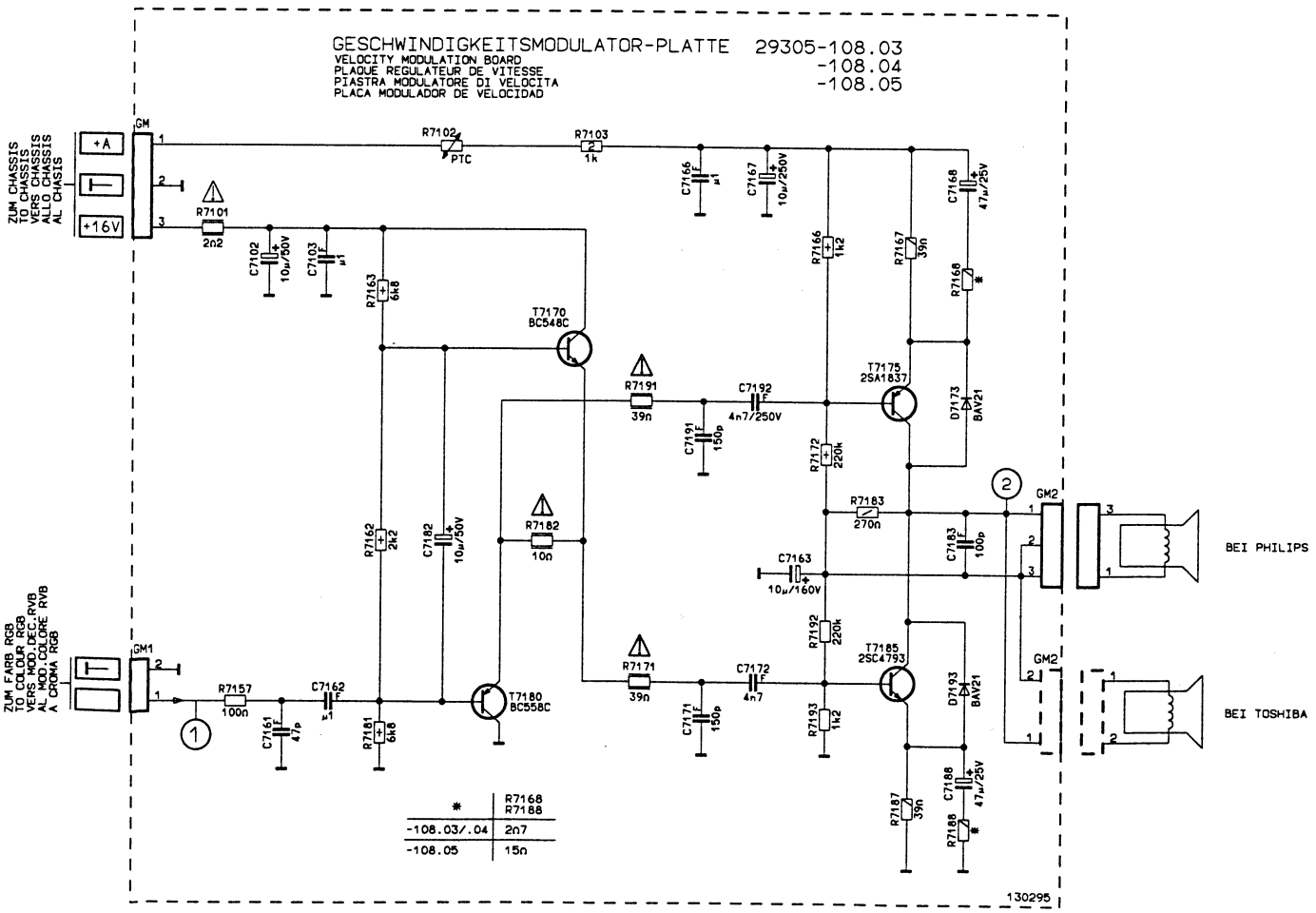


(41) 2V/cm, 50µs/cm

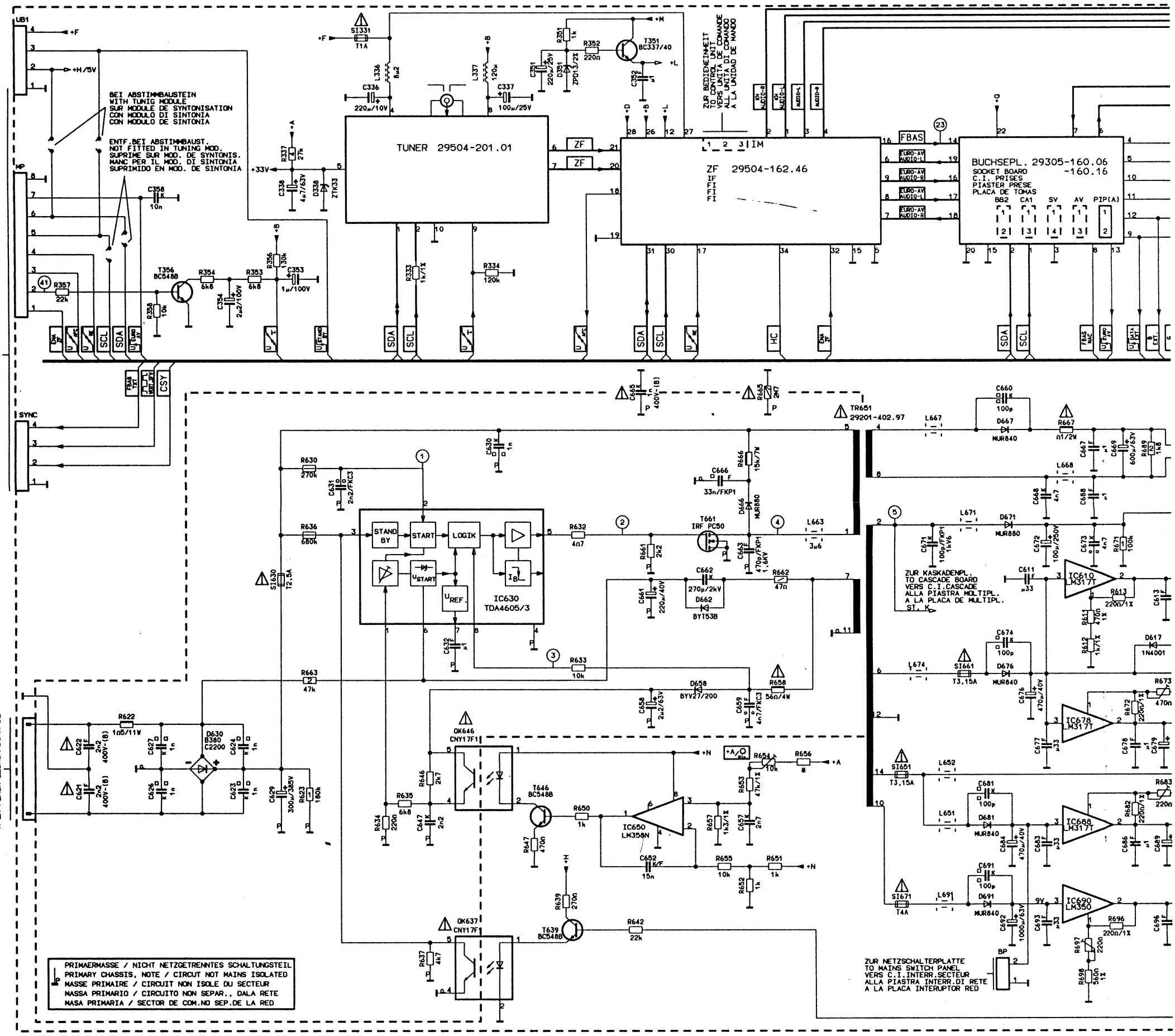
Fernbedienung / Remote Control / Telecomando FB 107

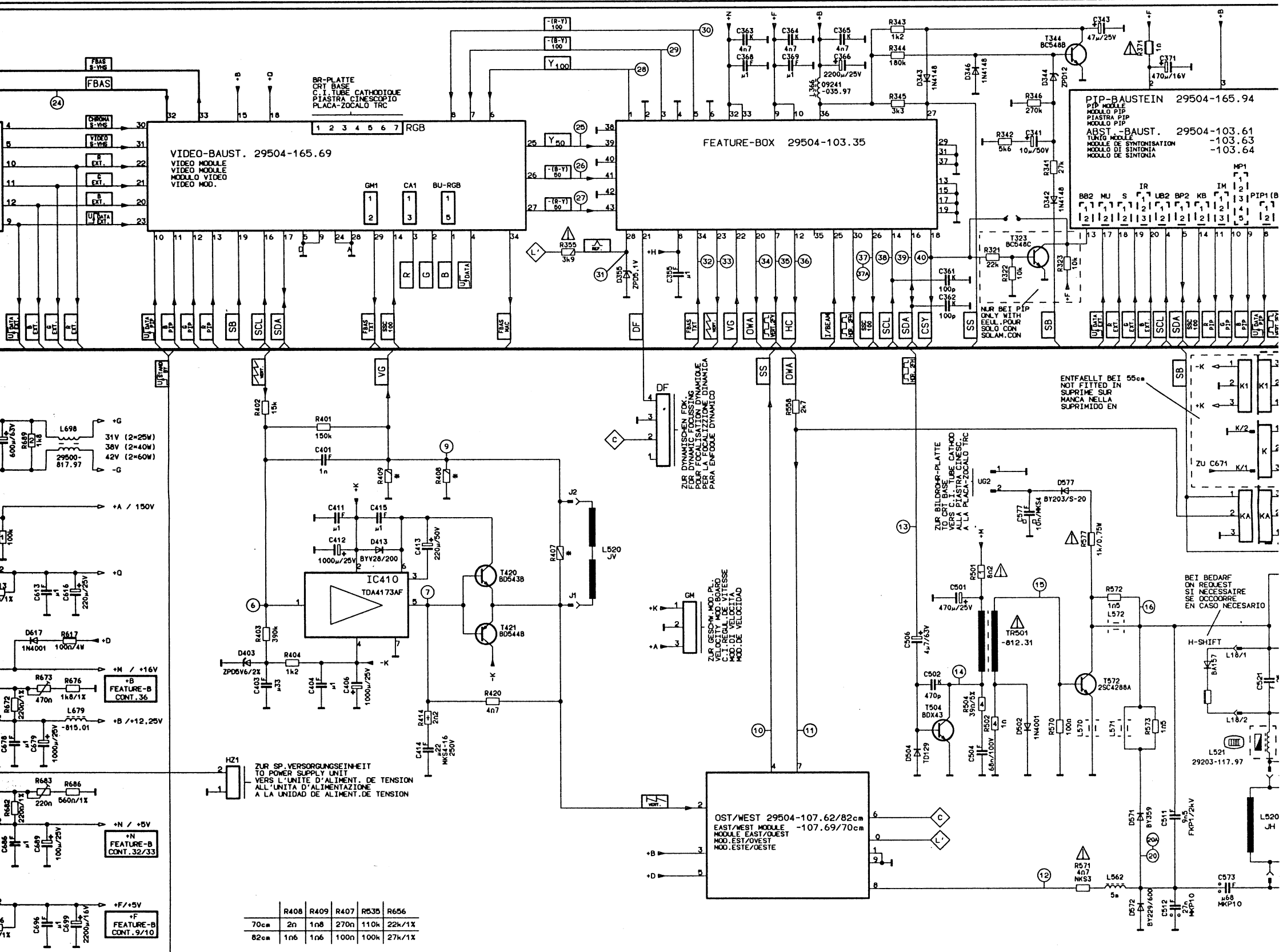


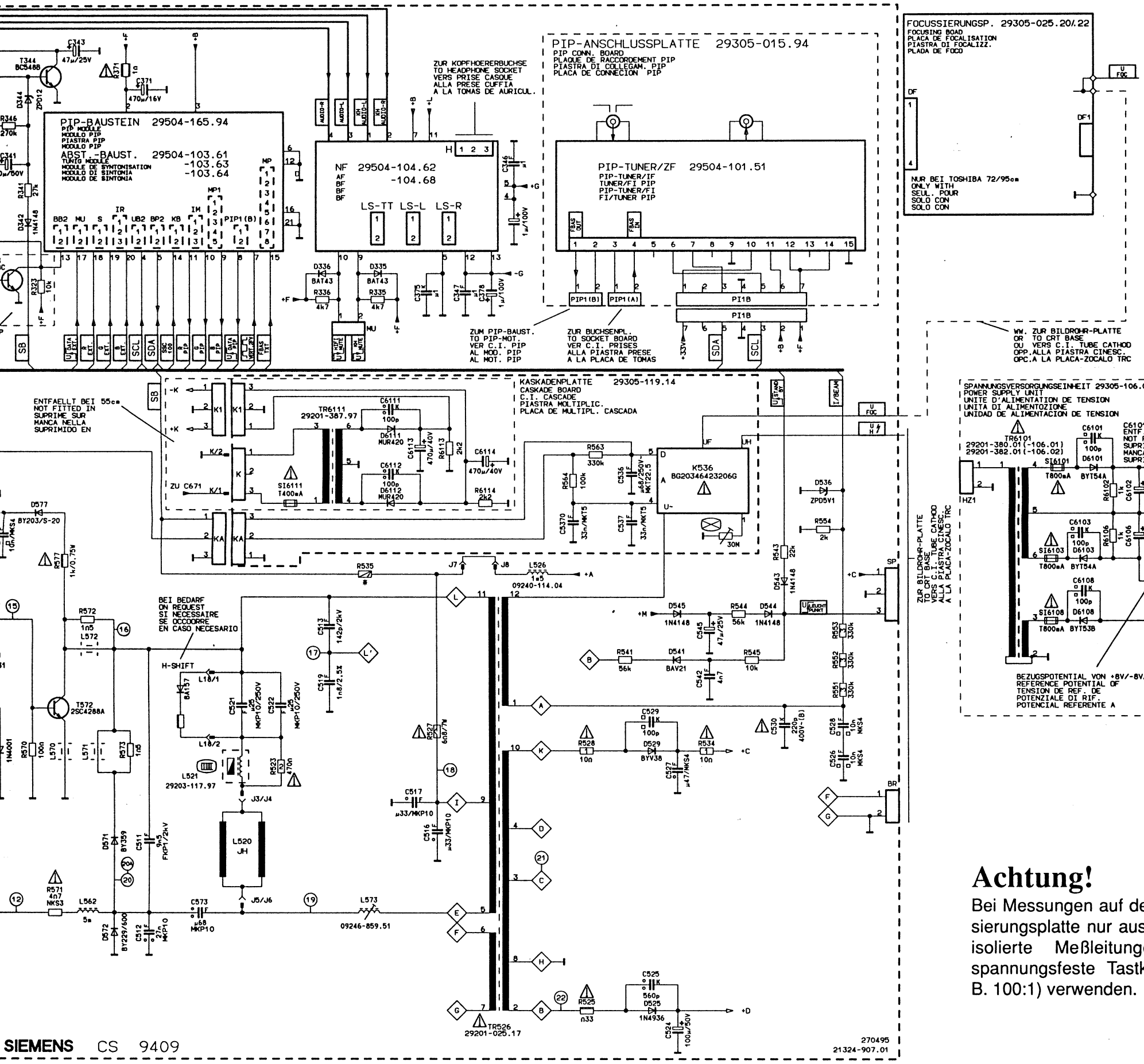
Geschwindigkeitsmodulator-Platte / Velocity Modulation Board / Piastra Modulatore di Velocita



Gesamtschaltplan / General Circuit Diagram / Schema Completo




VIDEO-BAUST. 29504-165.69
VIDEO MODULE
VIDEO MODULE
MODULO VIDEO
VIDEO MOD.
FEATURE-BOX 29504-103.35
PIP-BAUSTEIN 29504-165.94
PIP MODULE
MODULO PIP
PIASTRA PIP
MODULO PIP
ABST.-BAUST. 29504-103.61
TUNIG MODULE -103.63
MODULE DE SYNTONISATION -103.64
MODULO DI SINTONIA
MODULO DE SINTONIA
BR-PLATTE
CRT BASE
C.I.TUBE CATHODIQUE
PIASTRA CINESCOPIO
PLACA-ZOCALO TRC
IC410
TDA4173AF
OST/WEST 29504-107.62/82cm
EAST/WEST MODULE -107.69/70cm
MODULE EST/OUEST
MOD.EST/OVEST
MOD.ESTE/OESTE
ZUR DYNAMISCHEN FOK.
FOR DYNAMIC FOCUSSING
POUR FOCALISATION DYNAMIQUE
PER LA FOCALIZZIONE DINAMICA
PARA ENFOQUE DYNAMICO
ZUR GESCHW.MOD.PL.
VELOCITY MOD.BOARD
C.I.REGUL.DE VITESSE
MOD.DI VELOCITA
MOD.DE VELOCIDAD
ZUR SP.VERSORGUNGSEINHEIT
TO POWER SUPPLY UNIT
VERS L'UNITE D'ALIMENT. DE TENSION
ALL'UNITA D'ALIMENTAZIONE
A LA UNIDAD DE ALIMENT.DE TENSION
ZUR BILDROHR-PLATTE
CRT BASE
VERS PIASTRA CINESC.
A LA PLACA-ZOCALO TRC
ENTFAELLT BEI 55cm
NOT FITTED IN
SUPRIME SUR
MANCA NELLA
SUPRIMIDO EN
BEI BEDARF
ON REQUEST
SI NECESSAIRE
SE OCCOORRE
EN CASO NECESARIO
H-SHIFT
NUR BEI PIP
ONLY WITH
SEUL.POUR
SOLO CON
SOLAM.CON
+G
31V (2×25W)
38V (2×40W)
42V (2×60W)
-G
+A / 150V
+Q
+N / +16V
+B /+12.25V
+N / +5V
+F/+5V
+B FEATURE-B CONT.36
+N FEATURE-B CONT.32/33
+F FEATURE-B CONT.9/10
L698 29500-817.97
L679 -815.01
T420 BD543B
T421 BD544B
T504 BDX43
T572 2SC4288A
T323 BC548C
T344 BC548B
TR501 -812.31
L520 JV
L520 JH
L521 29203-117.97
L572
L571
L570
L562
D504 TD129
D502 1N4001
D571 BY359
D572 BY229/600
D577 BY203/S-20
D342 1N4148
D343 1N4148
D346 1N4148
D344 ZPD12
D355 ZPD5,1V
D403 ZPD5V6/2%
D413 BYV28/200
D617 1N4001
R355 3k9
R402 15k
R401 150k
R409 *
R408 *
R407 *
R558 2k7
R403 390k
R404 1k2
R420 4n7
R414 2n2
R501 8n2
R577 1k/0.75W
R572 1n5
R504 39n/5%
R502 1n
R570 100n
R573 1n5
R571 4n7 NKS3
R343 1k2
R344 180k
R345 3k3
R346 270k
R342 5k6
R341 27k
R321 22k
R322 10k
R323 10k
R371 10
R617 100n/4W
R673 470n
R676 1k8/1%
R683 220n
R686 560n/1%
C363 4n7 µ1
C364 4n7 K
C365 4n7 K
C366 2200µ/25V
C368 4n7 F µ1
C369 4n7 F µ1
C401 1n
C411 µ1
C415 µ1
C412 1000µ/25V
C413 220µ/50V
C403 µ33
C404 µ1
C406 1000µ/25V
C414 µ22 MKS4-16 250V
C501 470µ/25V
C506 4µ7/63V
C502 470p
C504 68n/100V
C577 10µ/MKS4
C511 9n5 FKP1/2kV
C512 2n MKP10
C573 µ68 MKP10
C343 47µ/25V
C371 470µ/16V
C361 100p
C362 100p
C355 µ1
C613 µ1
C616 220µ/25V
C676 µ1
C679 1000µ/25V
C682 2200/1%
C686 µ1
C689 100µ/25V
C696 µ1
C699 2200µ/16V
L1 100µ
L3 1µ
R689 1k8
R682 2200/1%
R672 2200/1%
R656 22k/1%
R535 110k
R656 22k/1%
R656 27k/1%
R656 100k
R656 100k
R656 100k



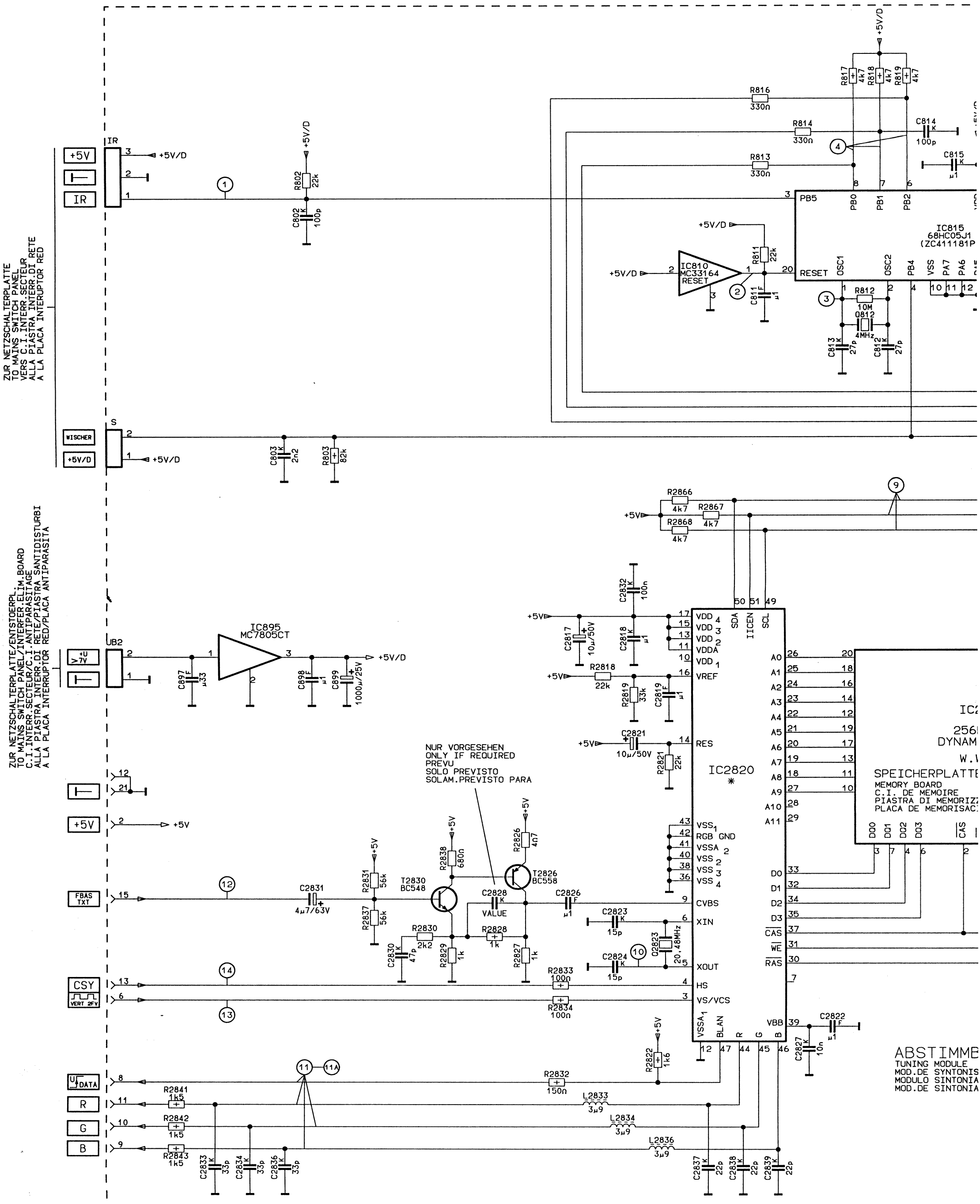
Achtung!

Bei Messungen auf der Fokussierungsplatte nur ausreichend isolierte Meßleitungen und spannungsfeste Tastköpfe (z. B. 100:1) verwenden.

Attention!

For measurements on the focus control panel use only sufficiently insulated measuring cables and test probes with ad-equate electric strength (eg. 100:1).

Abstimmbaustein / Tuning Module / Mod. di Sintonia



*	R875	R886	R878	C887	C886	IC 860	IC 2820	IC 2893
-103.61/.67	4k7	330Ω	4k7	100p	100p	19798-255	SDA5273S	256K×4
-103.62	4k7	330Ω	4k7	100p	100p	19798-281	SDA5273S/C26	256K×4
-103.63/.65	4k7	330Ω	4k7	100p	100p	19798-256	SDA5273S	256K×4
-103.64/.66	4k7	330Ω	4k7	100p	100p	19798-257	SDA5273S	256K×4
-103.68	●—●	4k7	——	●—●	——	19798-283	SDA5273S/C26	256K×4
-103.69	4k7	330Ω	4k7	100p	100p	19798-285	SDA5273S	256K×4
-103.70	●—●	4k7	——	●—●	——	19798-290	SDA5273S/C26	256K×4
-103.92	4k7	330Ω	4k7	100p	100p	19798-291	SDA5273S	256K×4
-103.93	4k7	330Ω	4k7	100p	100p	19798-288	SDA5273C	——
-103.94	4k7	330Ω	4k7	100p	100p	19798-294	SDA5273C	——
-003.65	4k7	330Ω	4k7	100p	100p	19798-284	SDA5273S	256K×4

IC815
68HC05J1
(ZC411181P)

IC850
MC68HC11F1

*
IC2893
256K x 4
DYNAMIC RAM
W.W.
SPEICHERPLATTE 29305-119.21
MEMORY BOARD
C.I. DE MEMOIRE
PIASTRA DI MEMORIZZAZIONE
PLACA DE MEMORISACION

*
IC860
27C20
W.W.
27C40

IC870
MC33164
RESET

ABSTIMMBAUSTEIN 29504-103.61 -103.92
TUNING MODULE -103.62 -103.93
MOD.DE SYNTONISATION -103.63 -103.94
MODULO SINTONIA -103.64
MOD.DE SINTONIA -103.65 -003.65
-103.66
-103.67
-103.68
-103.69
-103.70

NUR BEI -103.61
ONLY WITH
SEUL.POUR
SOLO NELLA VERS.
SOLO CON

+5V
R824 220k
R825 470k
R829 4k7
R830 4k7
BP2
2
1
U MOTOR L
U MOTOR R

ZUR ENTSTOERPLATTE
TO INTERFERENCE ELIMINATION BOARD
VERS C.I.ANTIPARASITAGE
ALLA PIASTRA ANTIDISTURBI
A LA PLACA ANTIPARASITA

MP1
5
4
3
2
1
+5V
VDR
SCL
SDA

ZUR LED-PLATTE
TO LED BOARD
VERS C.I.LED
ALLA PIASTRA LED
A LA PLACA LED

+5V/D
R832 4k7
SCL
SDA

KB
1
2
+5V

ZUM KEYBOARD
TO KEYBOARD
VERS CLAVIER
AL KEYBOARD
AL TECLADO

R834 1k
C834 1n
IC840
X24C08
W.W.
ST24C08
R877 4k7
C877 µ1

21 56
PG4 PE0
IRQ 17 +5V
XIRGQ 16
PE6 59
PD3 28 R871 100n
PD4 29 L872
PE2 58
PE7 61
PA4 35
PG5 20
PE3 60 R889 4k7

R847 4k7
R846 3k6
R876 4k7
R873 100k
R885 100k
R851 1k
R848 1k
C885 10n
C873 10n
R850 4k7
C846 10n
C851 1n
C849 100p
C848 47p
C847 100p

MP
1
2
3
4
5
6
7
8
U EURO AV
+H
U STAND BY
U RE
U AFC
U τ
ENA ZF
+5V/D

ZUM CHASSIS
TO CHASSIS
VERS CHASSIS
AL TELAIO
AL CHASIS

R875 *
R878 *
R886 *
R887 330n
R884 330n
R883 4k7
C886 *
C887 *
C884 100p

IM
1
2
3
IM CLOCK
IM RESET
IM IDENT

ZUM ZF-VERSTAERKER
TO IF AMPLIFIER
VERS AMPLIFI.FI
ALL'AMPLIFICATORE FI
AL AMPLIFICADOR FI

PG0/1 24
PG2 23
PG3 22
VRH 63 R881 1k +5V
C881 1µ/100V

MU
1
2
KH MUTE
HIFI MUTE

ZUM CHASSIS
TO CHASSIS
VERS CHASSIS
AL TELAIO
AL CHASIS

PG7 18 R835 330n
PG6 19 R833 330n
C833 1n
C835 1n

BB2
1
2
U EURO AV2
REMOTE

ZUR BUCHSENPLATTE
TO SOCKET BOARD
VERS. C.I. PRISES
ALLA PIASTRA PRESE
A LA PLACA DE TOMAS

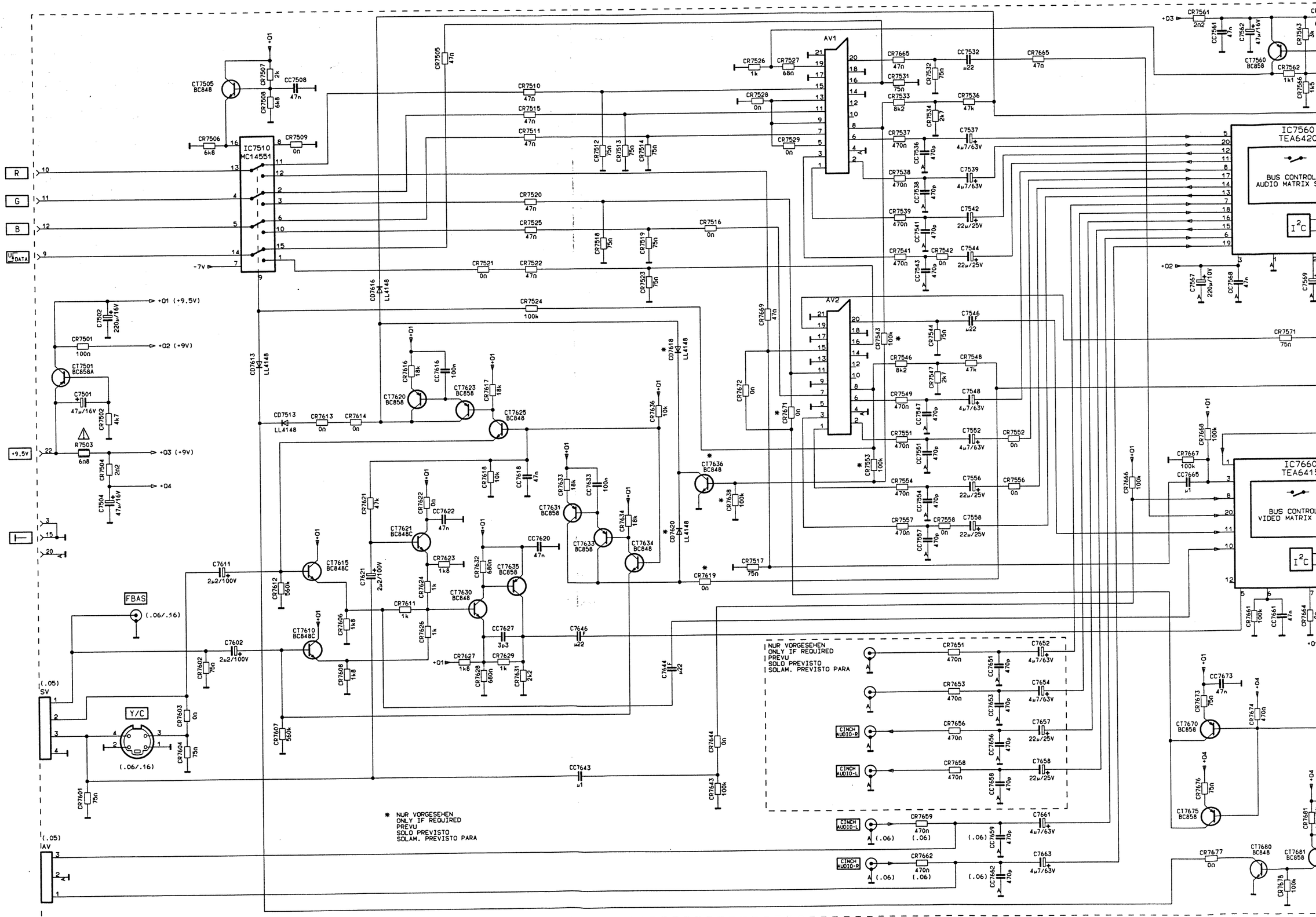
PD1 26
PA0 39
R822 2k2
Mp4
R827 22k
T822 BC548
R823 47k
R826 27k
D826 BA316
C822 220p
C826 220p
D831 BZX79 C5V6
R828 100k
T831 BC548
R831 220n
R866 22k +5V

NUR VORGESEHEN
ONLY IF REQUIRED
PREVU
SOLO PREVISTO
SOLAM.PREVISTO PARA

AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATE
SOURS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV. EL DEREC. DE MODIF.

180895

Buchsenplatte / Socket Board / Piastra Prese



BUCHSENPLATTE 29305-160.05
SOCKET BOARD -160.06
D.I.PRISES -160.15
PIASTRA PRESE -160.16
PLACA DE TOMAS

IC7560
TEA6420
BUS CONTROLLED
AUDIO MATRIX SWITCH
I²C

IC7660
TEA6415
BUS CONTROLLED
VIDEO MATRIX SWITCH
I²C

AV1
AV2

NUR VORGESEHEN
ONLY IF REQUIRED
PREVU
SOLO PREVISTO
SOLAM. PREVISTO PARA

CA1
Y KAMM
C KAMM
ZUM FARB RGB/SYNC.
TO COLOUR RGB/SYNC.
VERS MOD.DEC.RVB/SYNC.
AL MOD.COLORE RVB/SYNC.
A CROMA RGB/SYNC.

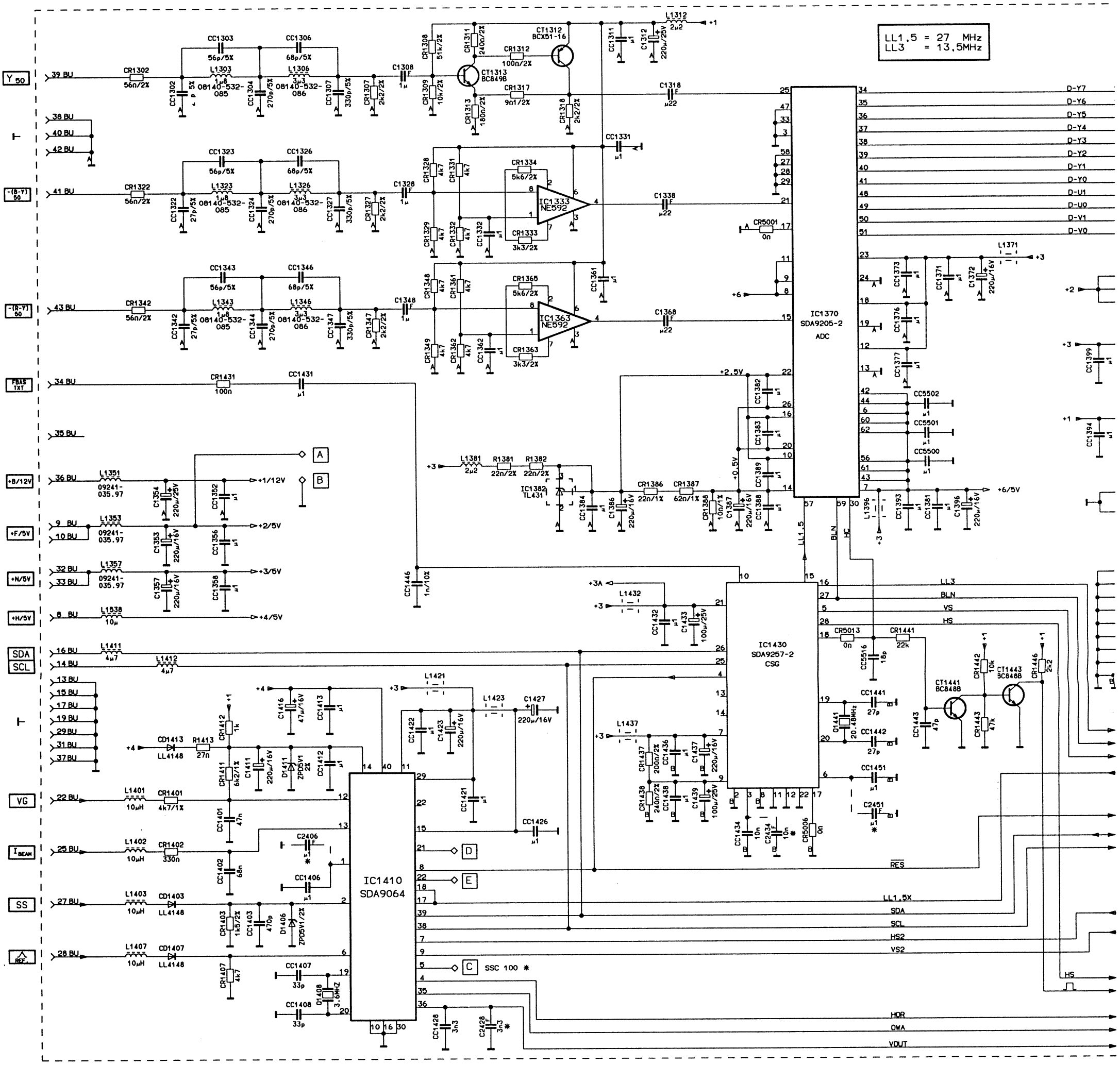
BB2
REMOTE
U EURO-AV2
ZUR BEDIENEINHEIT
TO CONTROL UNIT
VERS UNITA DE COMANDE
ALL UNITA DI COMANDO
A LA UNIDAD DE MANDO

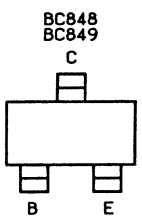
PIP
PIP FBAS
ZUR PIP-EINHEIT
TO PIP UNIT
VERS UNITE PIP
ALL'UNITA PIP
A LA UNIDAD PIP

U EURO-AV
EURO-AV AUDIO-L
EURO-AV AUDIO-R
EURO-AV AUDIO-L
EURO-AV AUDIO-R
SDA
SCL
FBAS S-VHS
VIDEO S-VHS
FBAS
CHROMA S-VHS
CINCH AUDIO-R
CINCH AUDIO-L
CINCH AUDIO-L
CINCH AUDIO-R

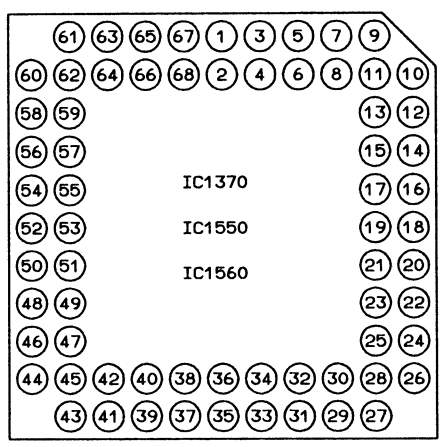
221294

Feature-Box

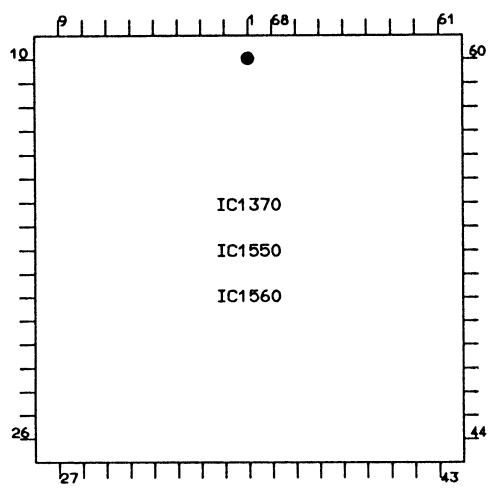




PLCC68



IC VON UNTEN
IC BOTTOM VIEW
IC VVUES DE DESSOUS
IC VEDUTO DA SOTTO
IC VISTO POR DEBAJO



IC VON OBEN
IC TOP VIEW
IC VUES DE DESSOUS
IC VEDUTO DA SOPRA
IC VISTO DESDE ARRIBA

DRAM-SPEICHERPLATTE 29305

IC1550
SDA9290

IC1551
SDA9251-2X

IC1552
SDA9251-2X

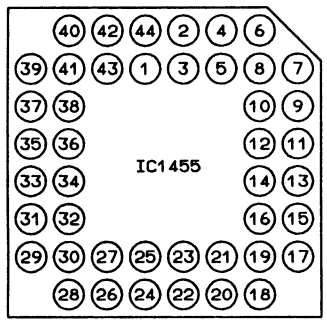
IC1553
SDA9251-2X

IC1560
SDA9280
DISPLAY
PROCESSOR

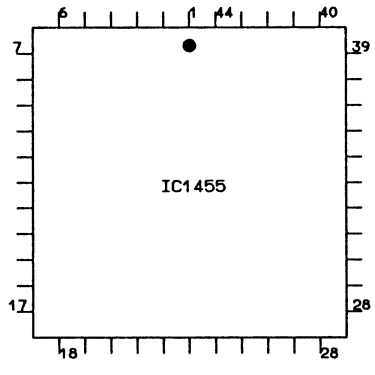
IC1455
SDA9220

FEATURE-BOX 29504-103.35

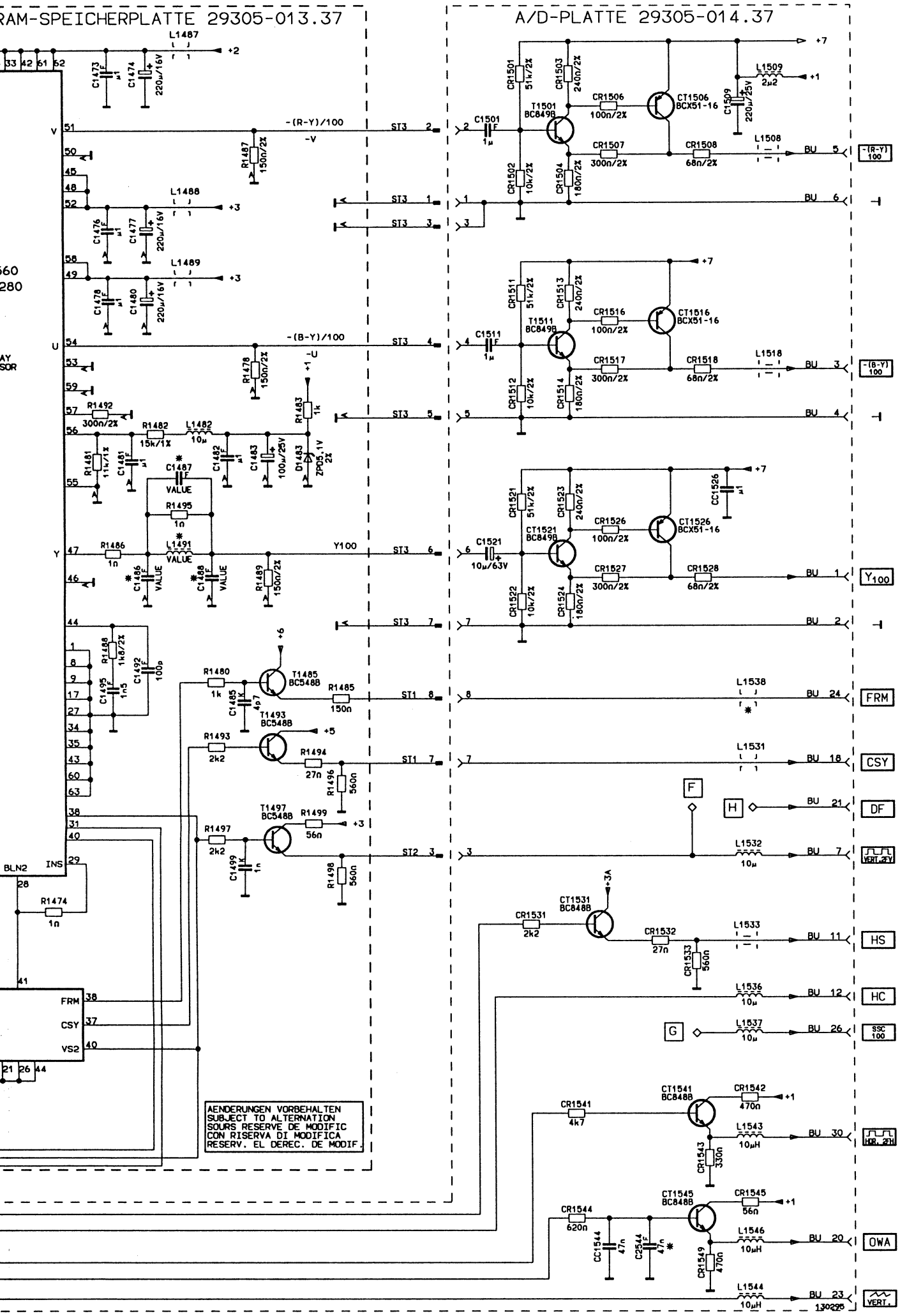
PLCC44



IC VON UNTEN
IC BOTTOM VIEW
IC VVUES DE DESSOUS
IC VEDUTO DA SOTTO
IC VISTO POR DEBAJO



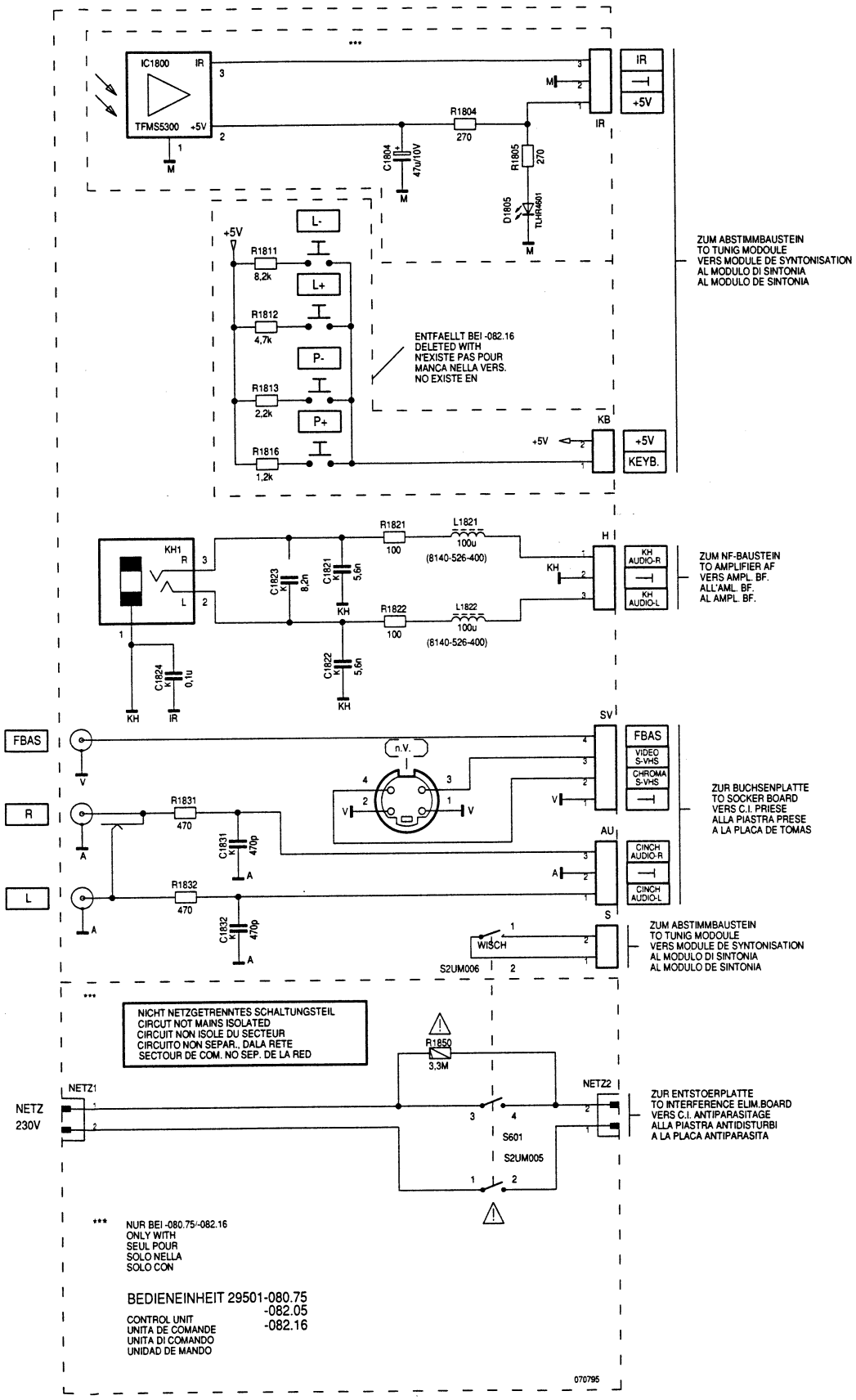
IC VON OBEN
IC TOP VIEW
IC VUES DE DESSOUS
IC VEDUTO DA SOPRA
IC VISTO DESDE ARRIBA



	BU-	ST1	ST2	ST3
01	Y/100 →	MASSE	HS2	MASSE ANALOG
02	MASSE	MASSE	VS2	-(R-Y)/100
03	-(B-Y)/100 →	SCL	VERT. 2FV	MASSE ANALOG
04	MASSE	SDA	+1/12V	-(B-Y)/100
05	-(R-Y)/100 →	BLN	+3/5V	MASSE ANALOG
06	MASSE	MASSE	MASSE	Y/100
07	VERT.2FV →	CSY	MASSE	MASSE ANALOG
08	→ +H (+4/5V)	FRM	+2/5V	
09	→ +F (+2/5V)	$\overline{RES}$	+2/5V	
10	→ +F (+2/5V)	VS	+2/5V	
11	HS →	MASSE		
12	HC →	LL1,5X		
13	MASSE	MASSE		
14	→ SCL	MASSE		
15	MASSE	LL3		
16	→ SDA →	MASSE		
17	MASSE	D-Y7		
18	CSY →	D-Y6		
19	MASSE	D-Y5		
20	OWA →	D-Y4		
21	DF →	D-Y3		
22	→ VG	D-Y2		
23	VERT.~ →	D-Y1		
24	FRM →	D-Y0		
25	→ IBEAM	D-U1		
26	SSC/100 →	D-U0		
27	→ SS	D-V1		
28	→ ⌒ REF	D-V0		
29	MASSE	MASSE		
30	HOR.2FH →	MASSE		
31	MASSE			
32	→ +N (+3/5V)			
33	→ +N (+3/5V)			
34	→ BAS			
35	FREI			
36	→ +B(+1/12V)			
37	MASSE			
38	MASSE ANALOG			
39	→ Y50			
40	MASSE ANALOG			
41	→ -(B-Y)/50			
42	MASSE ANALOG			
43	→ -(R-Y)/50			

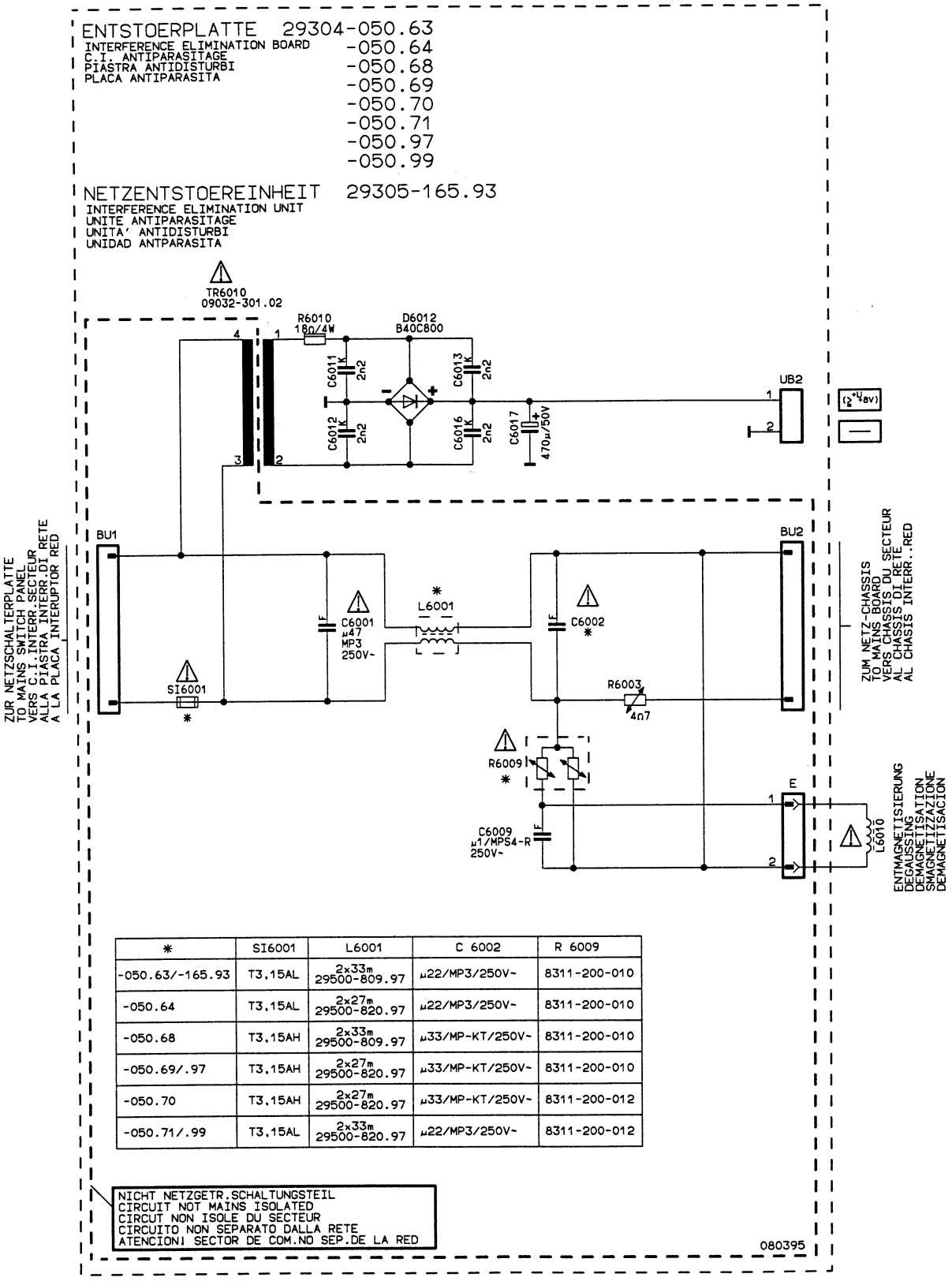
* NUR VORGESEHEN
ONLY IF REQUIRED
PREVU
SOLO PREVISTO
SOLAM.PREVISTO

Bedieneinheit / Control Unit / Unita di Comando



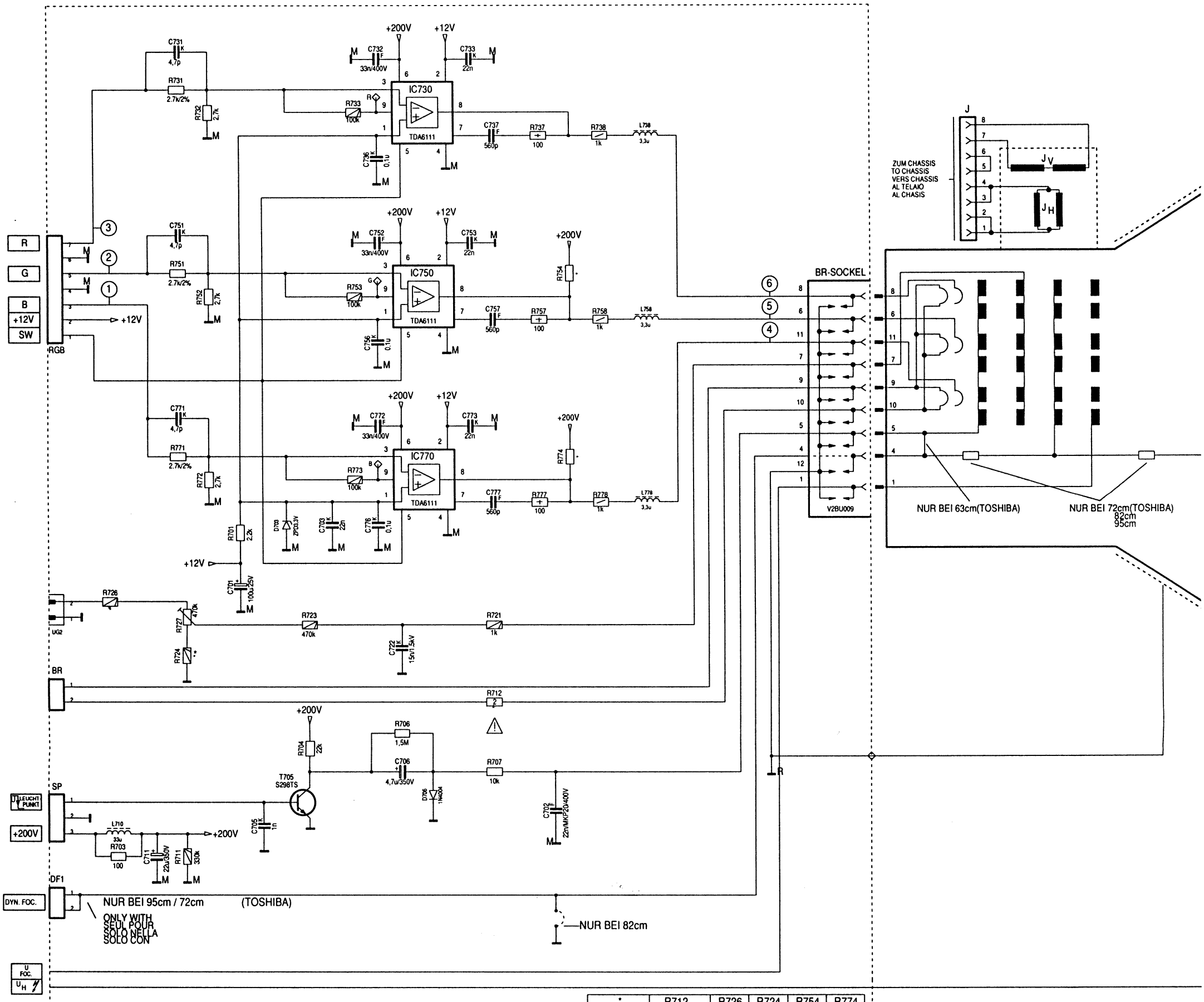
AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATE
SOURS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV. EL DEREC. DE MODIFIC.

Netzentstöreinheit / Interference Elimination Unit / Unite Antiparasitage



*	SI6001	L6001	C 6002	R 6009
-050.63/-165.93	T3,15AL	2x33m 29500-809.97	µ22/MP3/250V~	8311-200-010
-050.64	T3,15AL	2x27m 29500-820.97	µ22/MP3/250V~	8311-200-010
-050.68	T3,15AH	2x33m 29500-809.97	µ33/MP-KT/250V~	8311-200-010
-050.69/.97	T3,15AH	2x27m 29500-820.97	µ33/MP-KT/250V~	8311-200-010
-050.70	T3,15AH	2x27m 29500-820.97	µ33/MP-KT/250V~	8311-200-012
-050.71/.99	T3,15AL	2x33m 29500-820.97	µ22/MP3/250V~	8311-200-012

Bildrohrplatte / CRT Panel / Piastra Cinescopio



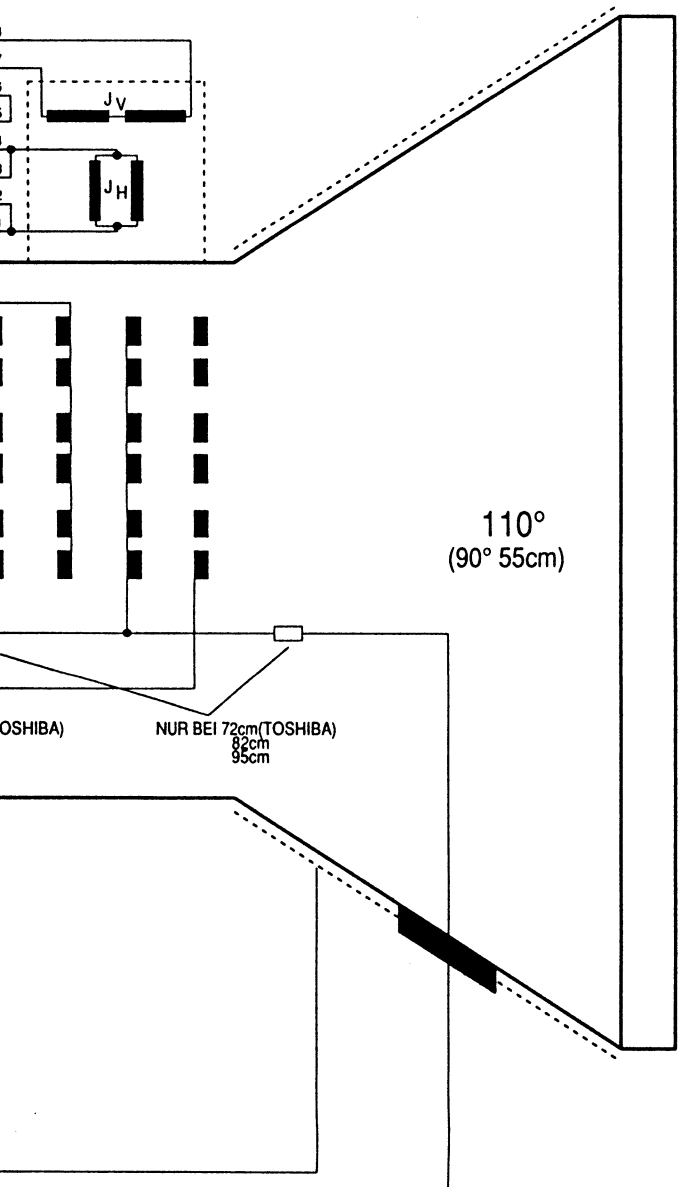
BILDROHRPLATTE
CRT PANEL
C.I. TUBE CATHOD.
PIASTRA CINESC.
PLACA-ZOCALO TRC

29305 - 022.31 (72cm TOSHIBA)
29305 - 022.34 (82cm)
29305 - 022.35 (95cm)
29305 - 022.36 (70cm/82cm TOSHIBA)
29305 - 022.37 (70cm/72cm PHILIPS)
29305 - 022.38 (63cm TOSHIBA)
29305 - 022.39 (63cm PHILIPS)
29305 - 022.89 (55cm DIGI 5)

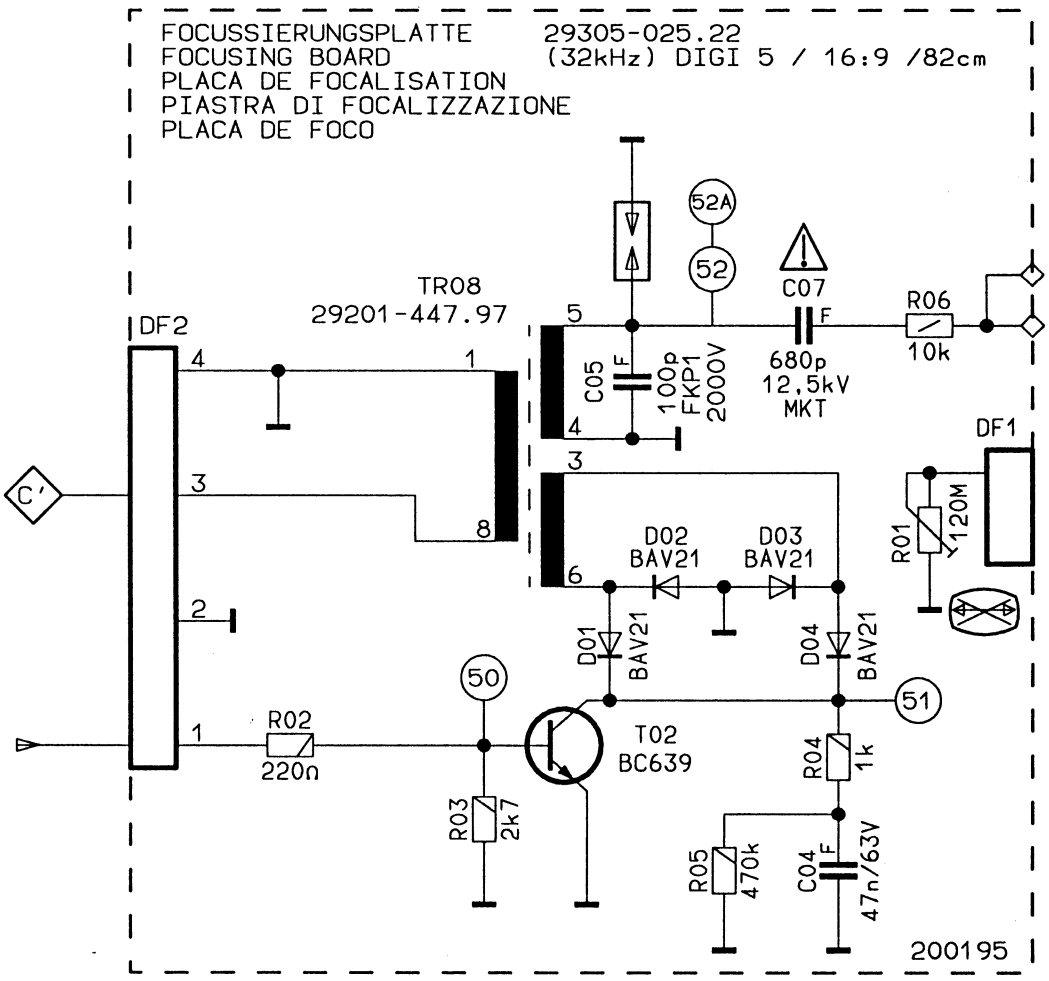
AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATE
SOURS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV. EL DEREC. MODIFIC.

*	R712	R726	R724	R754	R774
-022.34	—●—●	220k	390k	5,6M	6,8M
-022.35	3,9/3W	220k	390k	5,6M	6,8M
-022.36	3,9/3W	220k	390k	5,6M	6,8M
-022.31	—●—●	120k	470k	5,6M	6,8M
-022.37	4,7/2W	—●—●	1M	-	10M
-022.38	5,6/2W	120k	470k	5,6M	6,8M
-022.39	5,1/2W	—●—●	1M	-	10M
-022.89	5,6/2W	—●—●	1M	-	10M

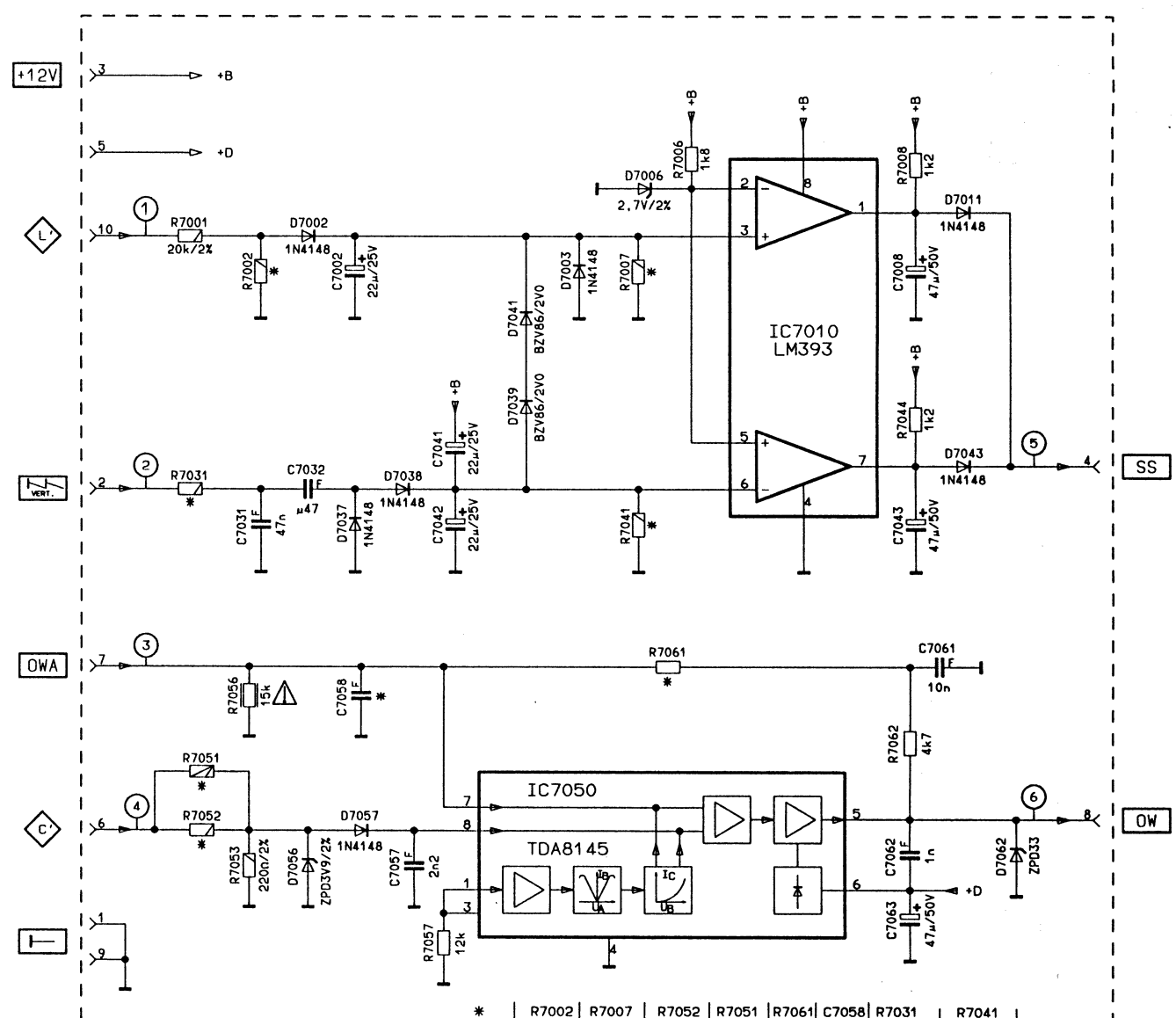
090295



Fokussierungsplatte / Focusing Board / Piastra di Focalizzazione



Ost/West-Baustein / East/West Module / Modulo Est/Ovest



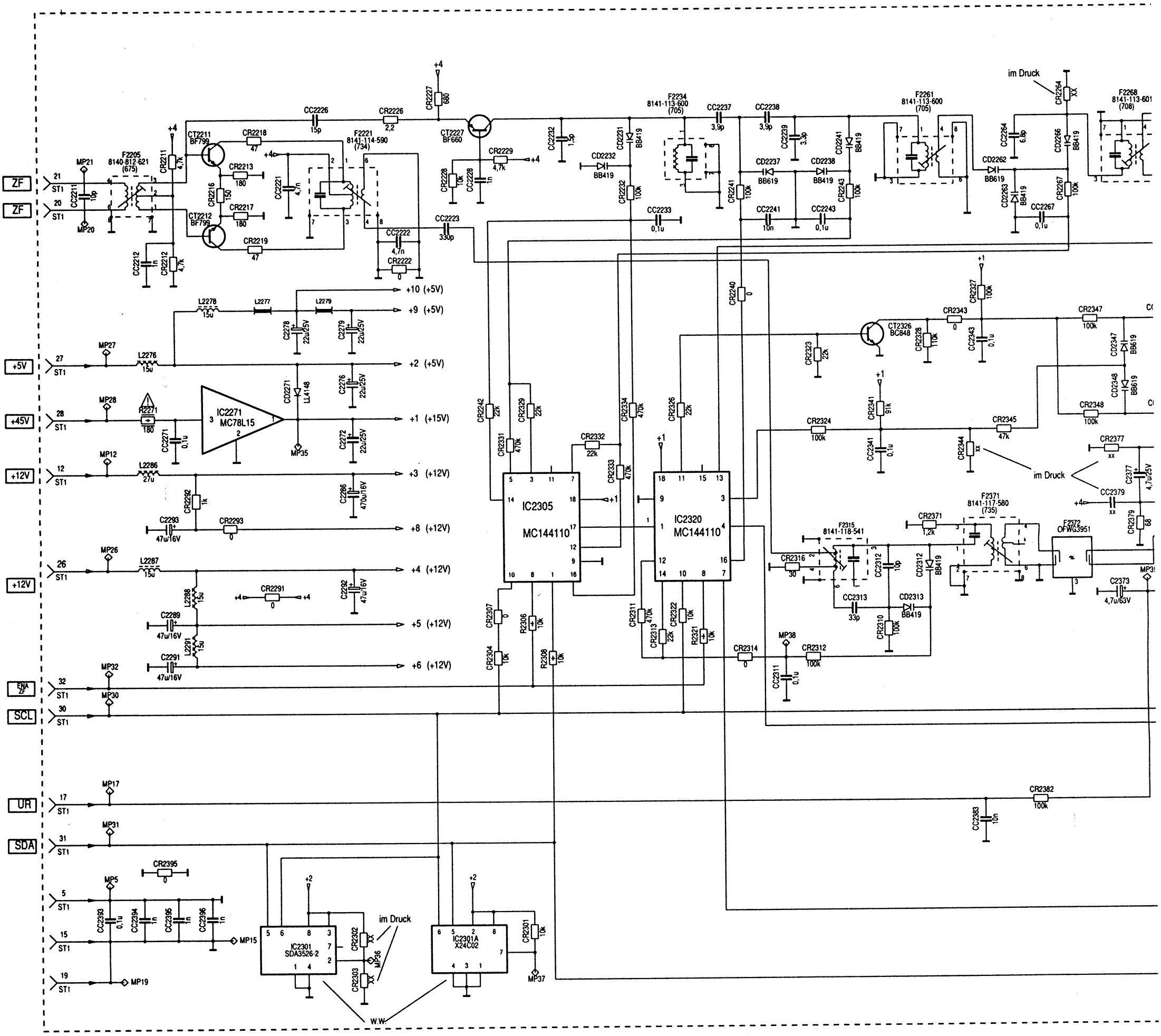
*	R7002	R7007	R7052	R7051	R7061	C7058	R7031	R7041
-107.62	3k/2%	13k/1%	33k/2%	3k9/2%	39k	22n	3k6/1%	12k/1%
-107.63	3k3/2%	13k7/1%	33k/2%	3k9/2%	39k	22n	2k7/1%	12k/1%
-107.64	3k3/2%	13k/1%	33k/2%	3k9/2%	39k	22n	5k6/1%	12k/1%
-107.65	3k9/2%	12k/1%	. —	4k7/2%	220k	22n	3k/1%	12k/1%
-107.66	3k/2%	12k/1%	33k/2%	3k9/2%	39k	22n	5k1/1%	12k/1%
-107.67	3k3/2%	11k/1%	33k/2%	3k9/2%	82k	µ1	3k3/1%	12k/1%
-107.68	3k9/2%	12k/1%	33k/2%	3k9/2%	82k	22n	3k6/1%	12k/1%
-107.69	3k/2%	13k/1%	33k/2%	3k9/2%	39k	22n	3k9/1%	11k/1%

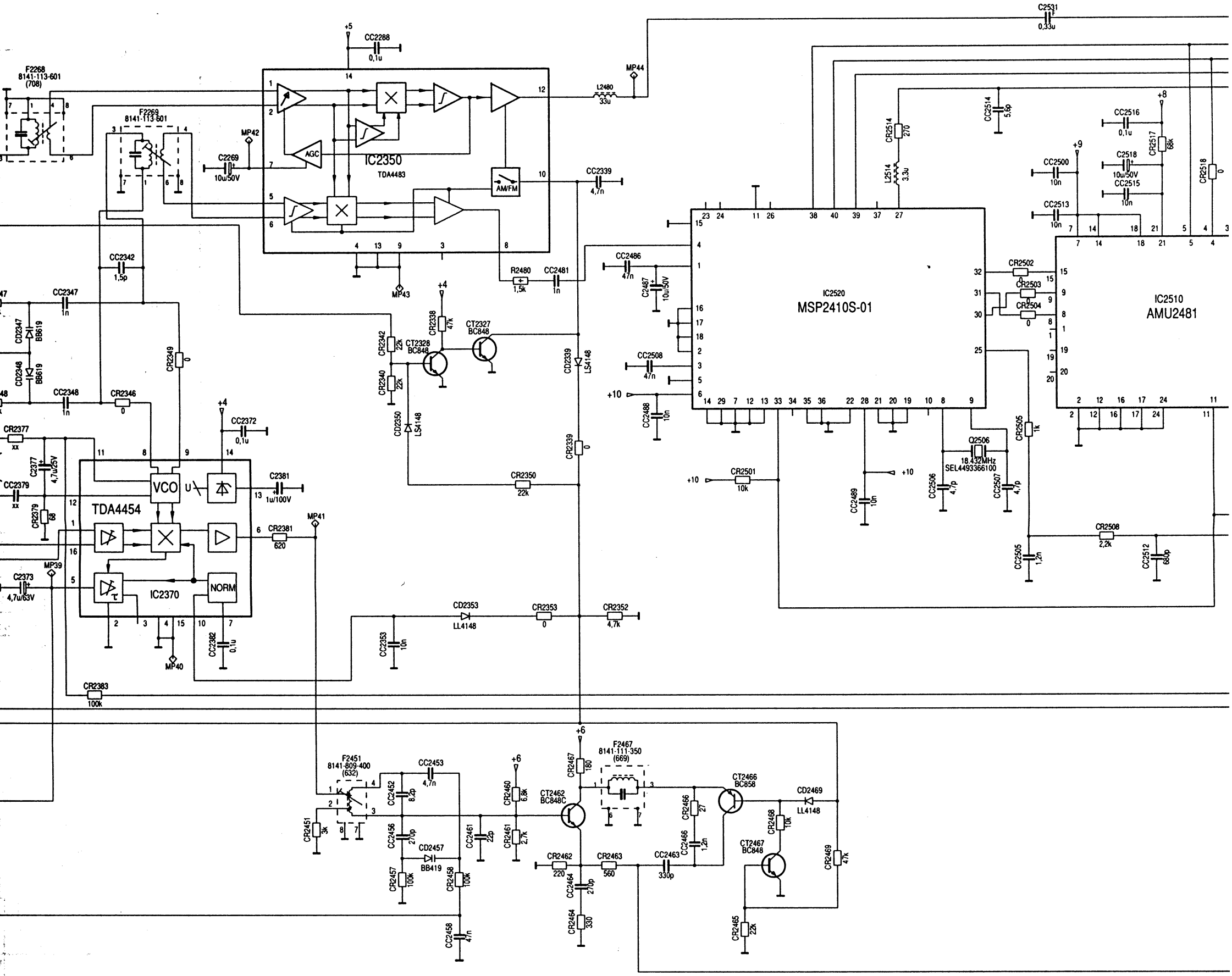
OST/WEST-BAUST. 29504
EAST/WEST MODULE
EAST/OUEST MOD.
MODULO EST/OVEST
MODULO ESTE/OESTE

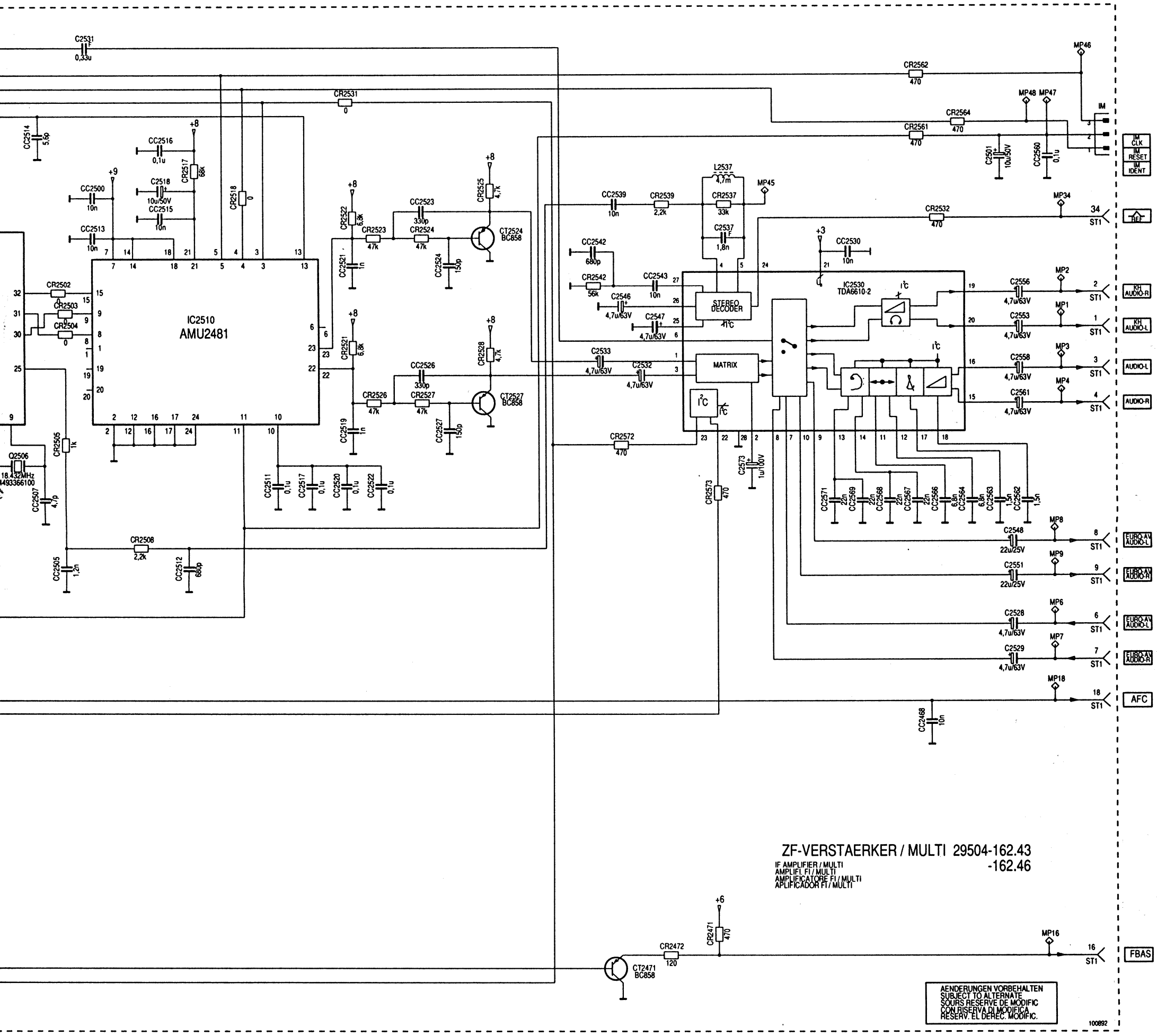
-107.62 TOSHIBA 82cm/16:9(DIGI 5)
-107.63 PHILIPS 55cm/63cm(BLS)
-107.64 TOSHIBA 63cm/72cm
-107.65 PHILIPS 63cm(SF)/72cm
-107.66 TOSHIBA 82cm
-107.67 TOSHIBA 95cm
-107.68 PHILIPS 70cm
-107.69 TOSHIBA 70cm/16:9(DIGI 5)

200295

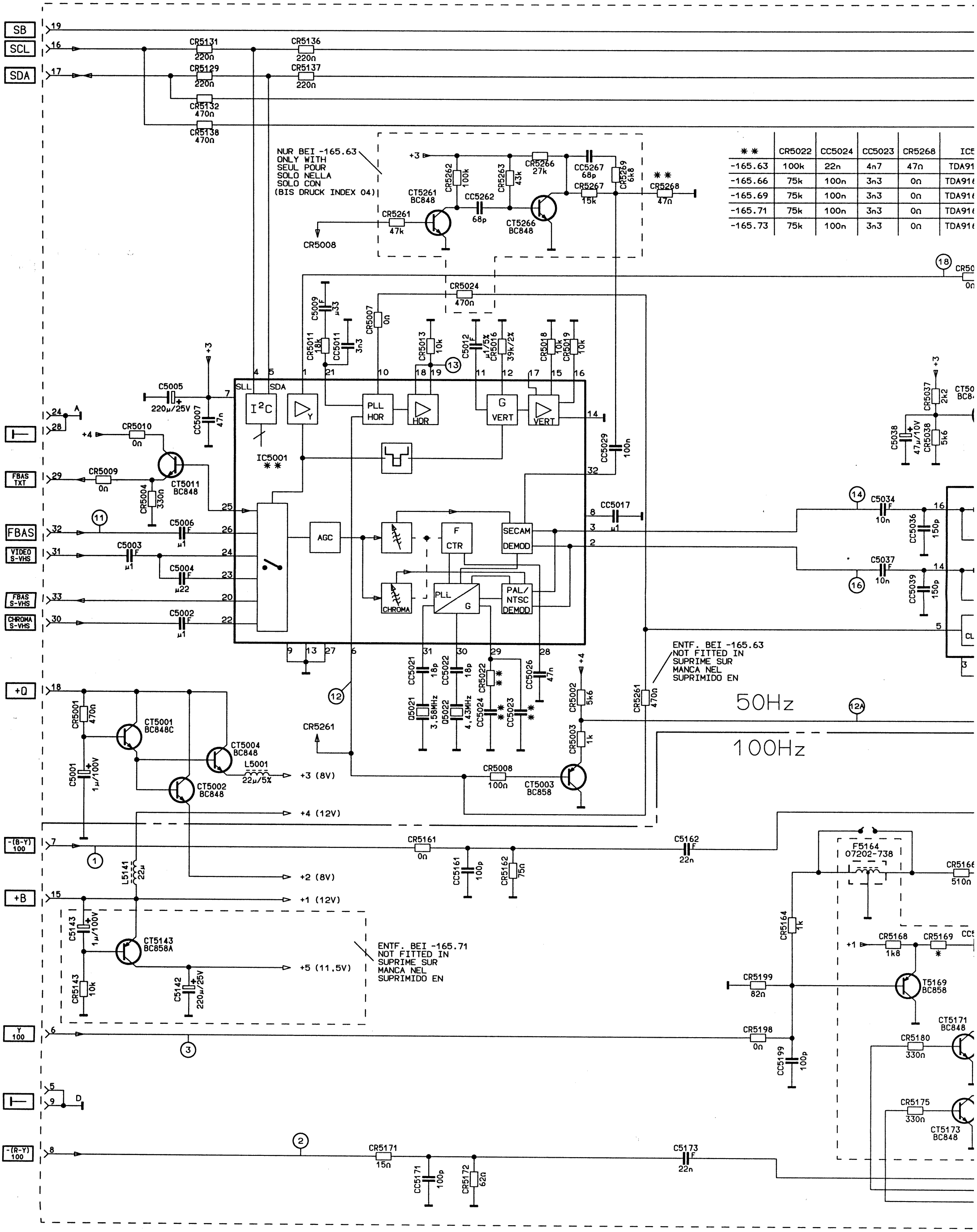
ZF-Verstärker / IF Amplifier / Amplificatore FI




F2268
8141-113-601
(708)
F2269
8141-113-601
IC2350
TDA4483
AGC
AM/FM
MP42
MP43
MP44
C2269
10u/50V
CC2288
0,1u
L2480
33u
CC2339
4,7n
R2480
1,5k
CC2481
1n
CC2342
1,5p
CC2347
1n
CD2347
BB619
CD2348
BB619
CC2348
1n
CR2346
0
CR2349
0
CR2342
22k
CR2340
22k
CR2338
47k
CT2328
BC848
CT2327
BC848
CD2350
LS4148
CD2339
LS4148
CR2339
0
CR2350
22k
CC2372
0,1u
CR2377
xx
C2377
4,7u/25V
CC2379
xx
CR2379
68
TDA4454
VCO
C2381
1u/100V
CR2381
620
MP41
MP39
C2373
4,7u/63V
IC2370
NORM
CC2382
0,1u
MP40
CR2383
100k
CD2353
LL4148
CR2353
0
CR2352
4,7k
CC2353
10n
IC2520
MSP2410S-01
CC2486
47n
C2487
10u/50V
CC2508
47n
CC2488
10n
+10
CR2501
10k
C2531
0,33u
CC2514
5,6p
CR2514
270
L2514
3,3u
CC2489
10n
CC2506
47p
CC2507
47p
Q2506
18.432MHz
SEL4493366100
CR2505
1k
CR2508
2,2k
CC2505
1,2n
CC2512
680p
IC2510
AMU2481
CC2516
0,1u
CR2517
68k
C2518
10u/50V
CC2515
10n
CC2500
10n
CC2513
10n
CR2518
0
CR2502
CR2503
0
CR2504
0
F2451
8141-809-400
(632)
CC2453
4,7n
CC2452
8,2p
CR2451
3k
CC2456
270p
CD2457
BB419
CR2457
100k
CR2458
100k
CC2458
47n
CC2461
22p
CR2460
6,8k
CR2461
2,7k
CT2462
BC848C
F2467
8141-111-350
(669)
CR2467
180
CR2462
220
CR2463
560
CC2463
330p
CC2464
270p
CR2464
330
CR2466
27
CC2466
1,2n
CT2466
BC858
CD2469
LL4148
CR2468
10k
CT2467
BC848
CR2469
47k
CR2465
22k
+4
+5
+6
+8
+9
+10

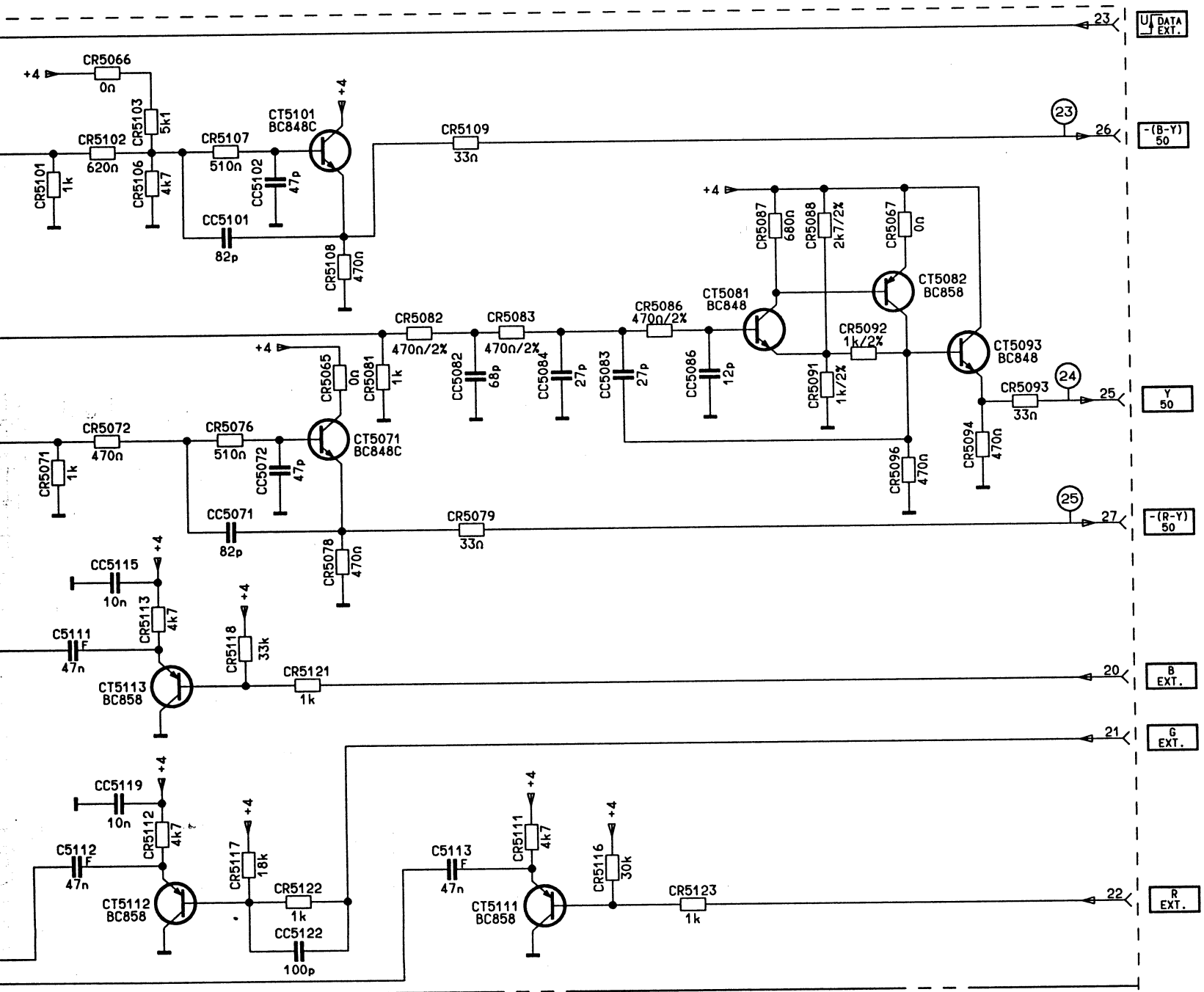

IC2510
AMU2481
IC2530
TDA6610-2
STEREO DECODER
MATRIX
I²C
ZF-VERSTAERKER / MULTI 29504-162.43
-162.46
IF AMPLIFIER / MULTI
AMPLIFI. FI / MULTI
AMPLIFICATORE FI / MULTI
APLIFICADOR FI / MULTI
AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATE
SOURS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV. EL DEREC. MODIFIC.
100892
IM CLK
IM RESET
IM IDENT
KH AUDIO-R
KH AUDIO-L
AUDIO-L
AUDIO-R
EURO-AV AUDIO-L
EURO-AV AUDIO-R
EURO-AV AUDIO-L
EURO-AV AUDIO-R
AFC
FBAS
REF
ST1

Video-Baustein / Video Module / Modulo Video



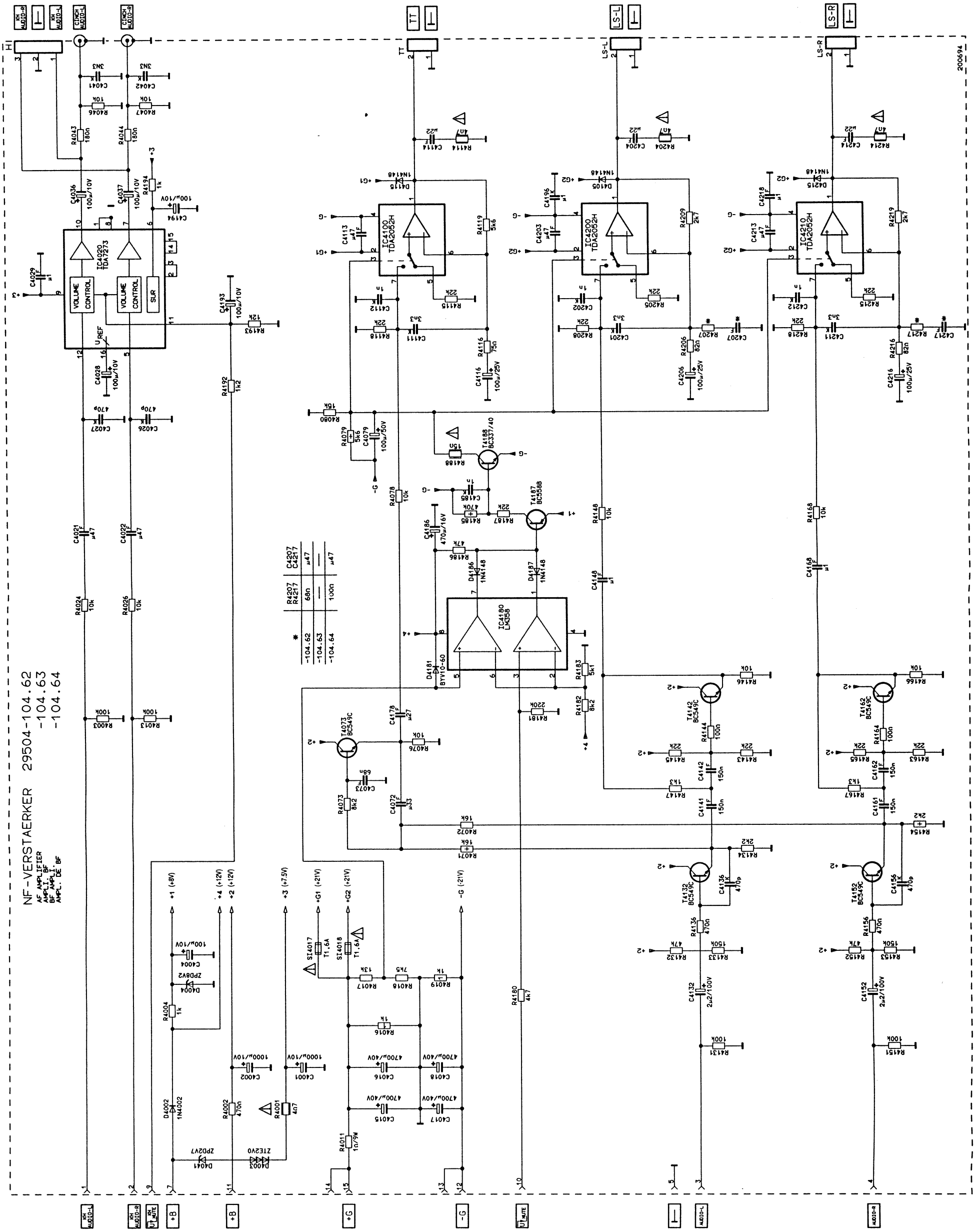
5023	CR5268	IC5001	IC5122	C5211 C5212 C5213	C5228	CR5208	CC5241	CR5169	CC5169	CC5191
n7	47n	TDA9160A	TDA4686	µ1	—	330n	—	47n	100p	2p7
n3	0n	TDA9160AN3B/N3C	TDA4686	µ1	—	330n	—	47n	100p	2p7
n3	0n	TDA9160AN3B/N3C	TDA4780	—	1µ/100V	0n	270p	47n	100p	2p7
n3	0n	TDA9160AN3B/N3C	TDA4780	—	1µ/100V	0n	270p	47n	100p	2p7
n3	0n	TDA9160AN3B/N3C	TDA4780	—	1µ/100V	0n	270p	22n	180p	—

ENTFAELLT BEI -165.71
NOT FITTED ON
N'EXISTE PAS POUR
MANCA NELLA VERS.
NO EXISTE EN

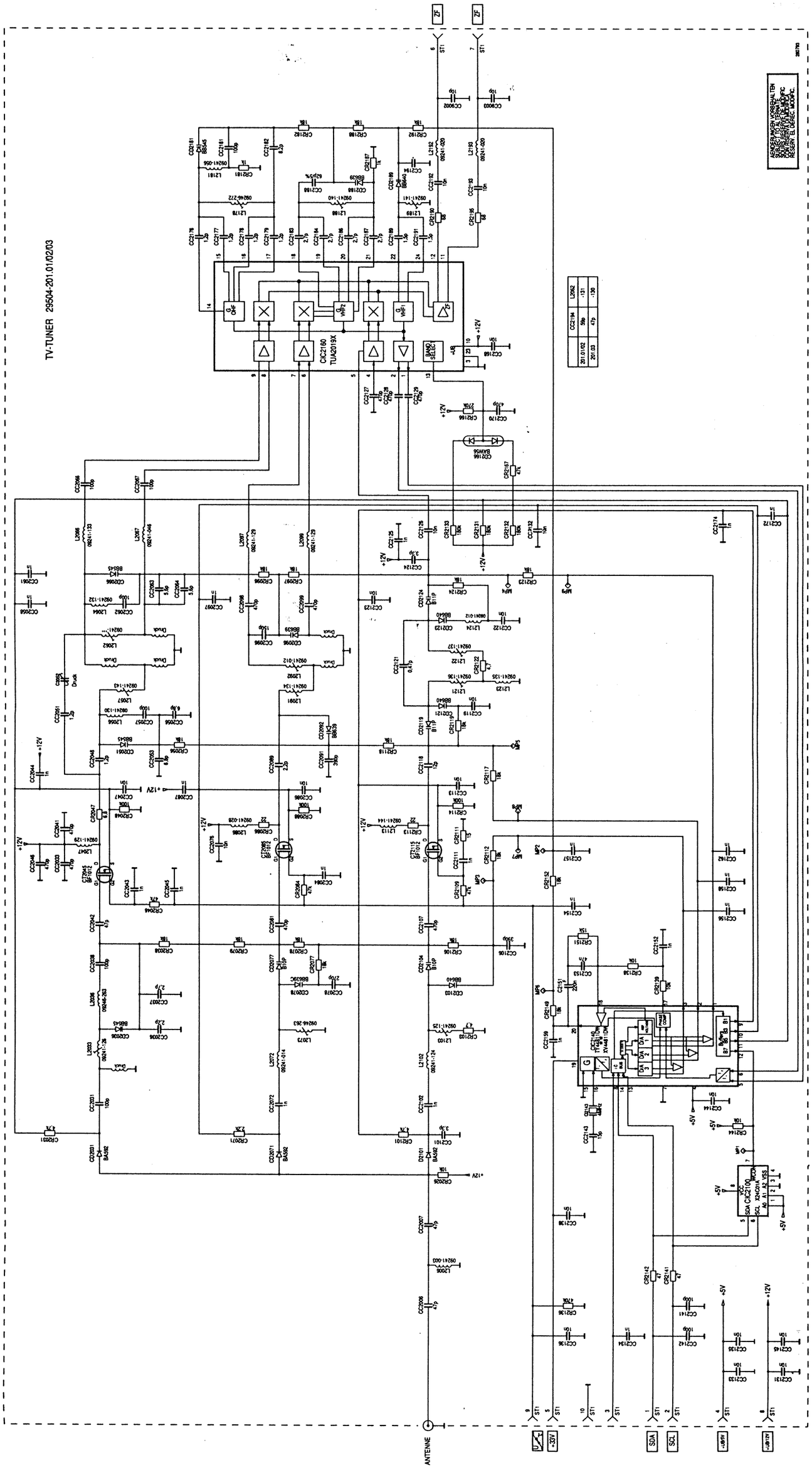

CR5066 0Ω
CR5103 5k1
CR5102 620Ω
CR5107 510Ω
CT5101 BC848C
CR5109 33Ω
CR5101 1k
CR5106 4k7
CC5102 47p
CC5101 82p
CR5108 470Ω
CR5087 680Ω
CR5088 2k7/2%
CR5067 0Ω
CT5082 BC858
CT5081 BC848
CR5086 470Ω/2%
CR5082 470Ω/2%
CR5083
CR5092 1k/2%
CT5093 BC848
CR5065 0Ω
CR5081 1k
CC5082 68p
CC5084 27p
CC5083 27p
CC5086 12p
CR5091 1k/2%
CR5093 33Ω
CR5072 470Ω
CR5076 510Ω
CT5071 BC848C
CR5071 1k
CC5072 47p
CR5096 470Ω
CR5094 470Ω
CC5071 82p
CR5079 33Ω
CR5078 470Ω
CC5115 10n
CR5113 4k7
CR5118 33k
C5111 F 47n
CT5113 BC858
CR5121 1k
CC5119 10n
CR5112 4k7
CR5117 18k
C5112 F 47n
CT5112 BC858
CR5122 1k
CC5122 100p
C5113 F 47n
CR5111 4k7
CR5116 30k
CT5111 BC858
CR5123 1k
23 U DATA EXT.
23 26 -(B-Y) 50
24 25 Y 50
25 27 -(R-Y) 50
20 B EXT.
21 G EXT.
22 R EXT.

C5207 1µ/100V
CR5202 680k
C5206 2µ2/100V
CD5202 LS4148
CR5205 0Ω
CR5207 2k7
ENTFALLT BEI -165.69
NOT FITTED IN
SUPRIME SUR
MANCA NELLA
SUPRIMIDO EN
CR5204 0Ω
CT5202 BC848
CR5206 820Ω/2%
CC5209 470p
CR5208 *
CR5209 100k
CT5211 BC858
CR5211 6k8
CR5212 10k
C5211 F **
C5212 F **
C5213 F **
C5216 F µ22
C5217 F µ22
C5218 F µ22
CR5213 1k5
CR5241 330Ω/2%
CC5241 **
CR5246 100Ω
CR5247 100Ω
CR5248 100Ω
ZÄHLER
COMP.
RGB
SW
12V
B
G
R
BILDROHR-PLATTE
TO CRT BASE
VERS C.I. TUBE CATHOD
ALLA PIASTRA CINESC.
A LA PLACA-ZOCALO TRC
ZUR ANZEIGE-EINHEIT
TO DYSPLAY UNIT
VERS L'UNITE D'INDICATION
ALL' INDICATORE D'UNITA
A LA UNIDAD DE INDICATION
BU-RGB
CR5407 680Ω
CR5408 680Ω
CR5409 680Ω
C5228 **
CR5133 1k
R
G
B
U DATA
U DATA PIP
R P.I.P.
G P.I.P.
B P.I.P.
SSC 100
VIDEO-BAUSTEIN 29504-165.63/.66/.69/.71/.73
VIDEO MODULE
MODULE VIDEO
MODULO VIDEO
MODULO DE VIDEO
ENTFAELLT BEI -165.71
NOT FITTED ON
N'EXISTE PAS POUR
MANCA NELLA VERS.
NO EXISTE EN
GM1
ZUR GESCHW.MOD.PL.
VELOCITY MOD.BOARD
C.I.REGUL.DE VITESSE
MOD.DI VELOCITA
MOD.DE VELOCIDAD
150895

NF-Verstärker / AF Amplifier / Amplificatore BF



Tuner


TV-TUNER 29504-201.01/02/03
ZF
ZF
ANTENNE
SDA
SCL
+30V
+5V
+12V
CIC2160
TUA2019X
CIC2100
XV4461 (DM)
SDA CIC2100
SCL CIC2100
XV4461 (DM)